Issued February 28, 1907.

U. S. DEPARTMENT OF AGRICULTURE,

BUREAU OF STATISTICS—BULLETIN NO. 49.

VICTOR H. OLMSTED, Chief of Bureau.



# COSTS OF HAULING CROPS

FROM

# FARMS TO SHIPPING POINTS.

BY

FRANK ANDREWS,

EXPERT IN TRANSPORTATION, DIVISION OF FOREIGN MARKETS.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1907.

# BULLETINS OF THE BUREAU OF STATISTICS.

[To be procured, at the prices indicated, from the Superintendent of Documents, Government Printing Office, Washington, D. C.]

No. 1.—Flax, Hemp, Ramie, and Jute. 1890. (Exhausted.)
No. 2.—Agriculture of South America. 1892. Price, 15 cents.
No. 3.—Cooperative Credit Associations in Certain European Countries. 1892. Price, 10 cents.
No. 4.—Wages of Farm Labor in the United States. Results of Nine Statistical Investigations from 1866 to 1892, with Extensive Inquiries Concerning Wages from 1840 to 1855. (Exhausted.)
No. 5.—Principal Agricultural Products of the World. 1893. Price, 15 cents.
No. 6.—Rice: Its Cultivation, Production, and Distribution. 1893. Price, 5 cents.
No. 7.—An Agricultural Survey of Wyoming. 1893. Price, 10 cents.
No. 8.—Recent Features of Our Foreign Trade. 1894. Price, 5 cents.
No. 9.—Production and Price of Cotton for One Hundred Years. 1895. (Exhausted.)
No. 10.—Railway Charges for the Transportation of Wool, July, 1896. Price, 5 cents.
No. 11.—Farm Animals in the United States, and Animal Products, 1880 to 1896. Price, 5 cents.
No. 12.—Freight Charges for Ocean Transportation, October 1, 1895, to October 1, 1896. Price, 5 cents.
No. 13.—The Fertilizer Industry. 1898. Price, 5 cents.
No. 14.—Of What Service are Statistics to the Farmer? 1898. (Exhausted.)
No. 15.—Changes in Charges for Railway and Other Transportation Services. 1898. Price, 5 cents. Revised Edition, 1901. Price, 5 cents.
No. 16.—The Cost of Cotton Production. 1899. Price, 5 cents.
No. 17.—The Cotton Crop of 1898–1899. Price, 5 cents.
No. 18.—The Course of Prices of Farm Implements and Machinery. 1901. Price, 5 cents.
No. 19.—The Cotton Crop of 1899–1900. Price, 5 cents.
No. 20.—Wheat Growing and Agricultural Conditions on the Pacific Coast. 1901. Price, 10 cents.
No. 21.—Charges for Transporting Garden Truck, with Notes on the Industry. 1901. Price, 5 cents.
No. 22.—Wages of Farm Labor in the United States. 1866–1899. Price, 5 cents.
No. 23.—Statistics on the Fruit Culture of California. 1901. Price, 5 cents.
No. 24.—Relation of Population and Food Products in the United States. 1903. Price. 5 cents.
No. 25.—Milk Transportation; Freight Rates to the Largest Fifteen Cities. 1903. Price, 5 cents.
No. 26.—Wages of Farm Labor in the United States. 1866–1902. Price, 5 cents.
No. 27.—Wheat Production and Farm Life in Argentina. 1904. Price, 10 cents. (Div. of For. Markets.)
No. 28.—The Commercial Cotton Crops of 1900–1901, 1901–1902, and 1902–1903. Price, 5 cents.
No. 29.—Methods and Routes for Exporting Farm Products. 1904. Price, 5 cents. (Division of Foreign Markets.)
No. 30.—International Sugar Situation. 1904. Price, 10 cents. (Division of Foreign Markets.)
No. 31.—Imports of Farm and Forest Products, 1901–1903. Price, 5 cents. (Div. of Foreign Markets.)
No. 32.—Exports of Farm and Forest Products 1901–1903. Price, 15 cents. (Div. of Foreign Markets.)
No. 33.—Trade with Noncontiguous Possessions in Farm and Forest Products, 1901–1903. Price, 5 cents. (Division of Foreign Markets.)
No. 34.—The Commercial Cotton Crop of 1903–1904. Price, 5 cents.
No. 35.—Imports of Farm and Forest Products, 1902–1904. Price, 5 cents. (Div. of Foreign Markets.)
No. 36.—Exports of Farm and Forest Products, 1902–1904. Price, 10 cents. (Div. of Foreign Markets.)
No. 37.—Trade with Noncontiguous Possessions in Farm and Forest Products, 1902–1904. Price, 5 cents. (Division of Foreign Markets.)
No. 38.—Crop Export Movement and Port Facilities on the Atlantic and Gulf Coasts. 1905. Price, 5 cents. (Division of Foreign Markets.)
No. 39.—Meat in Foreign Markets, Tariffs of Fourtech Importing Nations, and Countries of Surplus. 1905. Price, 5 cents. (Division of Foreign Markets.)
No. 40.—Meat Animals and Packing-house Products Imported into Fourteen Principal Countries, 1895–1904. Price, 5 cents. (Division of Foreign Markets.)
No. 41.—Norway, Sweden, and Russia as Markets for Packing-house Products. Imports from Principal Countries, 1895–1904. Price, 5 cents. (Division of Foreign Markets.)
No. 42.—Russia's Wheat Surplus. 1906. Price, 20 cents. (Division of Foreign Markets.)
No. 43.—Changes in Farm Values, 1900–1905. Price, 10 cents.
No. 44.—Local Conditions as Affecting Farm Values, 1900–1905. Price, 10 cents.
No. 45.—Imports of Farm and Forest Products, 1903–1905. Price, 10 cents. (Div. of Foreign Markets.)
No. 46.—Exports of Farm and Forest Products, 1903–1905. Price, 10 cents. (Div. of Foreign Markets.)
No. 47.—Trade with Noncontiguous Possessions in Farm and Forest Products, 1903–1905. Price, 10 cents. (Division of Foreign Markets.)
No. 48.—The Cost of Producing Farm Products. 1906. Price, — cents.

[Continued on page 3 of cover.]

Issued February 28, 1907.

U. S. DEPARTMENT OF AGRICULTURE,

BUREAU OF STATISTICS—BULLETIN NO. 49.

VICTOR H. OLMSTED, Chief of Bureau.

---

# COSTS OF HAULING CROPS

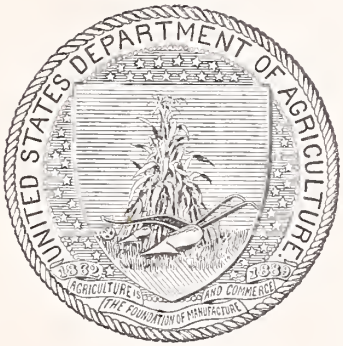
FROM

# FARMS TO SHIPPING POINTS.

BY

FRANK ANDREWS,

EXPERT IN TRANSPORTATION, DIVISION OF FOREIGN MARKETS.




WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1907.

## ORGANIZATION OF BUREAU OF STATISTICS.

*Chief:* VICTOR H. OLMSTED.
*Assistant Chief:* CHARLES C. CLARK.
*Chief Clerk:* ELMER J. LUNDY.

*Division of Domestic Crop Reports:* FRED J. BLAIR, *chief.*
*Division of Foreign Markets:* GEORGE K. HOLMES, *chief;* FRANK R. RUTTER, *assistant chief.*
*Miscellaneous Division:* CHARLES C. CLARK, *in charge.*

### CROP-REPORTING BOARD.

VICTOR H. OLMSTED, *Chief of Bureau, chairman.*
CHARLES C. CLARK, *Assistant Chief of Bureau.*
GEORGE K. HOLMES, *Chief of Division of Foreign Markets.*
Two members selected from month to month from the corps of field agents and of State statistical agents.

# LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Statistics,
*Washington, D. C., December 18, 1906.*

Sir: I have the honor to transmit herewith a manuscript relating to the "Costs of Hauling Crops from Farms to Shipping Points," which has been prepared in accordance with a large amount of information received from correspondents of this Bureau in all parts of the United States. The economic feature of the subject is of very large importance to the farmer and also to the consumer; and, incidentally, the subject emphasizes the influence of good roads upon diminishing the cost of distributing farm products. The undertaking has been under the supervision of George K. Holmes, chief of the Division of Foreign Markets, and grew out of investigations concerning the cost of transporting surplus crops to foreign countries.

I recommend that this manuscript be published as Bulletin No. 49 of this Bureau.

Very respectfully,

Victor H. Olmsted,
*Chief of Bureau.*

Hon. James Wilson,
*Secretary of Agriculture.*

# CONTENTS.

# COSTS OF HAULING CROPS FROM FARMS TO SHIPPING POINTS.

## STATISTICAL METHODS.

### QUESTIONS ASKED OF CORRESPONDENTS.

The cost of hauling products from farms to shipping points varies with the size of loads hauled, the distance and time from farm to shipping point, and the cost per day of providing team, wagon, and driver for the service. Some products are usually hauled in smaller loads than are other products, and the value of one crop may justify a longer haul than would be allowed by the value of the other. For this reason separate returns were obtained for the costs of hauling each of 23 products from farms to local shipping points. To obtain this information, inquiries were sent to about 2,800 county correspondents of the Bureau of Statistics of the Department of Agriculture.

To avoid the uncertainties so apt to arise from using too many estimates, the questions were so worded that answers might be easily supplied by the correspondents without having to resort to any computations whatever, and where the data returned by a correspondent required further explanation he was invited to give it. Much valuable information was received under the title "Remarks." The questions were:

1. Weight of a usual medium load of principal farm products hauled to railroad or steamboat shipping point in your county?
2. Usual number of horses or mules used per load?
3. Usual cost of hiring such team, together with wagon and driver, per day for any purpose?
4. What are the principal farm products hauled to shipping points?
5. Greatest distances of haul to railroad or steamboat shipping points by any considerable number of farmers?
6. Time usually taken for the longest round trips by any considerable number of farmers?

Replies to these questions were received from correspondents in 1,894 counties, nearly all of which replies contained all the necessary data. Three items were desired as a basis for finding the cost per 100 pounds for hauling each product from the farm to the local shipping point—the cost per day, the time required to make the haul, and

the number of pounds in a load. As a check on the answer giving the time for the longest round trip the distance to the shipping point was asked, and as a partial check on answers as to the size of load the question regarding the number of horses or mules was included in the schedule.

### THE AVERAGE WAGONLOAD.

The size of load was generally given in pounds or tons, but often the number of bushels of each kind of grain was mentioned. The number of horses per load proved to be of but little use in checking errors in the returns for the weight of the loads, for, on account of differences in the qualities of roads in some regions, two horses hauled as much and even more than did four horses in other parts of the country.

The weight desired was the usual medium weight of a wagonload of each leading crop hauled, and hence could be given accurately only for those products usually hauled in full wagonloads, and either in bulk or in packages of a uniform size. For, when the contents of a wagon are packed in boxes, barrels, and baskets of various sizes the net weight of the products hauled varies to such an extent between one wagonload and another that any estimate of an average or usual net weight of a load of produce would be subject to error.

In the case of miscellaneous fruits and vegetables, the weights of average loads as given in Tables 10 and 20 (costs of hauling fruits and vegetables, respectively) are gross weights and have but little practical value in estimating the average net cost per 100 pounds for hauling these articles. In giving the data for these figures the correspondents usually told of the modifications to which the data were subject.

### METHOD OF FINDING AVERAGE TIME.

It will be noted that the time asked for was that of the "longest round trip for any considerable number of farmers." Such information is generally known in a community, and so is the information as to the greatest distance of any considerable number of farmers from the local shipping points. The average time required by all farmers to make the round trip from farm to shipping point was computed in this way:

The farming area about a shipping point may be regarded roughly as in a circle. Assuming the longest distance of any considerable number of farmers from a certain shipping point to be 12 miles, the area of the circle including the farmers using that shipping point would be 452 square miles. One-half of this area, or 226 square miles, is included within a circumference drawn with a radius of 8.5 miles from the shipping point. Hence one-half of the farmers may be assumed to haul from points distant less than 8.5 miles from the

shipping point, and the other half to haul farther than 8.5 miles. This distance is therefore taken as the average hauled by all farmers using that shipping point. The average time for a round trip is computed in the same way, by using the number of days instead of the number of miles for the radius of each circle.

### INDEFINITE LENGTH OF A DAY.

The time required in this investigation to constitute a day is the entire time from leaving home to the return, and includes the intermediate time taken for loading and unloading wagons, for meals, for feeding horses, and for other purposes. Waste and rest are believed to be important items in the total time required for a round trip.

The correspondents generally expressed the time for the longest round trips in days, but a number of replies gave the number of hours. A "day" of hauling does not generally mean an exact number of hours; whether a farmer reaches home at 5 o'clock or half past 6 in the afternoon, he is apt to count the time as a "day." Knowing that the trip will "spoil" a day—that there will not be time enough left for any considerable amount of work at home, even if he can reach there an hour or two earlier—the driver will not have much inducement to hurry. More time may therefore be spent at the shipping point or on the road driving home leisurely. On account of the indefinite length of a day, some allowance has been made in reducing hours to days where the correspondent gave his answer in hours. Any number of hours from eight to twelve was called one day in compiling the tables from the correspondents' schedules.

The mean time of round trip for a State in a number of instances was found to be such a fraction as 0.7 or 1.1 day. Such exact numbers, of course, do not represent any individual case, for it would be very unusual for a farmer to estimate time in tenths of one day; but owing to the slight variation in the time between one product or State and another product or State, it is necessary to retain at least one decimal place in the State averages for number of days, in order to make comparisons.

### RATES OF HIRING AND ACTUAL COSTS.

The price for hiring a team, wagon, and driver for one day in a given community is taken, in this investigation, as the cost of hauling in that community—the cost to the farmer to perform that service for himself. It is known that farmers in the United States usually do their own hauling, and in many parts of the country the practice prevails of exchanging services, so that a number of men may on one day haul enough of one man's produce to load a railway freight car, and on another day they perform the same service for a second member of the group, continuing this until all members have been helped;

but, as a general fact, it is rare that a farmer hires his produce hauled to a shipping point or local market, and in many communities the practice is unknown.

### INSTANCES OF HIRING.

In a few parts of the wheat regions of the Mississippi Valley farmers hire their grain hauled at certain rates per bushel; and professional "freighters" are important aids to the farmers and grazers between the eastern slope of the Rocky Mountains and the Pacific coast. This region is one of great distances, and it does not pay all of the producers to keep enough horses, wagons, and drivers to move their wool, cotton, or other surplus over the long distances of 50, 75, 100, and even 150 miles from the ranch to the "local" shipping point or market. The "freighter" will take the produce for a moderate charge, and on his return trip will bring merchants' goods and farm supplies from the distant railroad station.

### CONDITIONS AFFECTING ACTUAL COST.

Hauling in most cases may be regarded as a secondary employment for the horses, wagons, and drivers of the farm, the chief duties of the men with their teams being on farms themselves. According to one method of estimating what it actually costs a given farmer to perform the service of hauling, it would be necessary to compute the cost of keeping the horses or mules, and maintaining the wagon, harness, and other equipment, including return for their purchase money, and to apportion such costs between hauling and the rest of the work; to make a similar computation for wages of the driver, when he is employed by the month for general services; to determine a fair compensation to the farmer in case he drives the team himself; and to allow for numerous modifying conditions, such as carrying loads on return trips, taking partial loads, and hindrances on account of bad roads, and consequent failure to take advantage of good prices. In using this method to estimate the average cost of hauling for the entire United States, it is not to be expected that an estimate based upon so many elements, some of which are difficult if not impossible to determine accurately, would be at all satisfactory.

But the price paid for hiring may be regarded, generally, as subject to competition and, hence, tending to equal a sum which will just cover the actual cost of performing the service and allow a fair profit in addition.

The actual cost to a farmer of performing the service of hauling for himself may in certain instances be less than the cost of hiring, and in other cases it may be more. The hauling may be done when no other farm work is pressing and when teams and wagons would

have no other employment. One-half the cost of hauling may be saved when it is practicable to take full loads on the return trips. Sometimes farmers haul produce to market and return with loads of fertilizer, coal, or other goods. These back loads, however, may be regarded as rather exceptional, and their influence upon the average cost per load of produce hauled from the farm, as computed in the following tables, is not known to be important.

### HAULING AT INCREASED EXPENSE.

On the other hand the farmer's expense of hauling may be increased on account of bad roads; he may be compelled to deliver his product at the local shipping point when prices are low or wait for a better market and run the risk of having to haul over rough roads with more horses to the wagon and a much lighter load. Some persons prefer to sell at a lower price than to wait for a better market and incur the expense of hauling under difficulties which may amount to double or even four times the normal cost.

Taking into consideration the low and the high costs of hauling, it does not appear that the average cost is not about the usual price for hiring in that community.

### RATES PAID IN FOUR COUNTIES.

It is possible to make a partial comparison between the average costs of hauling wheat in Kansas and Nebraska, as estimated in Table 21, and the actual rates paid in two counties in each of those States. In Ellsworth and Woodson counties, Kans., when farmers hire wheat hauled, rates varying from 3 to 5 cents per bushel for distances ranging from 4 to 14 miles are reported as usual in those counties, or a mean cost of 4 cents per bushel for 9 miles. The mean cost of hauling wheat in Kansas, according to Table 21 (cost of hauling wheat from farms to shipping points), is 3.6 cents per bushel, and the mean distance from farm to shipping point is 8.9 miles. Two correspondents in Banner and Loup counties, Nebr., report a charge of 10 cents per bushel for hauling wheat from farms to shipping points over routes varying from 20 to 35 miles. The mean of these distances, or 27.5 miles, is three times the average distance for the State, as given in Table 21, and the rate charged by professional teamsters, or 10 cents per bushel, is about $2\frac{1}{3}$ times the average cost of hauling in the table mentioned.

These instances of agreement strengthen the assumption that the actual cost to farmers for hauling their products may be computed with fair accuracy from the average cost per day for hiring a team, wagon, and driver.

### UNITED STATES AVERAGES.

The average weight of load, distance, time, and cost for each State and Territory was obtained in each case by adding the returns from each county and dividing the sum by the number of items, no regard being given to the relative production in each county of the crop in question. It does not appear, however, that the result thus obtained would be changed to any extent if the returns from each county were weighted according to its importance, for there was a general uniformity in the returns in many cases for the same product and State.

The average for each crop for the United States and for each geographic division was desired to be weighted according to the relative quantity of the product which was hauled from the farms to shipping points in each State and Territory. Data for the movement of all crops are not available, but the percentages of wheat, corn, and oats shipped out of the county where grown are compiled by the Department of Agriculture. Cotton and a few other kindred products, it may be assumed, are practically all hauled from the farms where they are produced.

All production figures were taken from census reports, and in the case of wheat, corn, and oats the relative quantity hauled from farms in each State and Territory was estimated by applying to the census production the percentage for 1905 of the grain shipped out of the county where grown. The taking into account of the relative importance of a given crop in each State and Territory proved of much importance in finding averages for the United States, because States making small crops of a certain product often returned figures for weight of load, distance, time, and cost widely different from the returns for the regions of great production. In the case of miscellaneous fruits and vegetables the averages for the United States were not weighted, owing to lack of sufficient data for production.

## AVERAGES FOR TWENTY-THREE PRODUCTS.

### SUMMARY FOR UNITED STATES.

The figures for the United States, as given in Tables 2 to 22, inclusive, are summarized in Table 1, "Average costs of hauling products from farms to shipping points in the United States." Of the 23 products mentioned in this table, the figures for each of 12 are based upon returns from more than 100 counties, while 3 more products are each reported from more than 50 counties. For the remaining 8 products mentioned in Table 1, the returns were not so numerous and the results for these articles, as given in the table, should be examined with some care in order that they may not be misunderstood.

The production of surplus crops of beans, flaxseed, hemp, hops, peanuts, rice, and timothy seed is limited in each case to one or more restricted areas, hence reports from a few counties for one of these crops may easily cover the entire industry; but an error in one correspondent's report where only a few reports were made for the crop in question might lead to a serious mistake in the State average. In compiling all returns care was taken to avoid using figures which were plainly wrong, such as giving the average weight of a 2-horse wagonload as 20,000 pounds, or the time of the longest round trip as three hours, when the distance was given as 15 miles. Schedules containing such errors, where there was no clue to the correct figures, were rejected and the incorrect data not used in compiling the tables of averages.

The averages for timothy seed were compiled for Iowa only, and the only reports for hemp were received from Kentucky; hence, no separate tables were made for these two products as were made for the other crops mentioned in Table 1.

## VALUES OF PRODUCTS AND COSTS OF HAULING.

The average costs per 100 pounds for hauling products from farms to shipping points vary in a number of instances roughly with the relative values of the articles hauled, the more valuable product being hauled often at greater cost than the less valuable product. Corn, wheat, oats, hay, and potatoes were hauled at costs ranging from 7 to 9 cents per 100 pounds, cotton 16 cents, and wool 44 cents per 100 pounds. Tobacco and hogs, however, cost only 10 cents per 100 pounds to be hauled from farms. The difference in cost of hauling between one product and another is largely due to the relative distance traversed and the relative size of load taken. It will pay to produce cotton farther away from local shipping points than grain, and 150 miles is not too far to haul wool from ranches to railroad stations. Hogs being produced generally where grain is also a surplus crop, the prevailing distances and methods of hauling for the cheaper products would affect the cost of hauling the higher-priced commodity.

TABLE 1.—*Average costs of hauling products from farms to shipping points: Totals for States represented.*

| Product hauled. | Number of counties reporting. | Average— | | | | | |
|---|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. | Cost per ton per mile. |
| Apples | 114 | 9.6 | 0.9 | 2,300 | $2.79 | $0.12 | $0.25 |
| Barley | 226 | 8.8 | .7 | 3,970 | 2.67 | .07 | .16 |
| Beans | 22 | 9.0 | .8 | 3,172 | 2.75 | .09 | .20 |
| Buckwheat | 8 | 8.2 | .8 | 2,438 | 2.90 | .11 | .27 |
| Corn | 981 | 7.4 | .6 | 2,696 | 1.78 | .07 | .19 |
| Cotton | 555 | 11.8 | 1.0 | 1,702 | 2.76 | .16 | .27 |
| Cottonseed | 110 | 10.7 | .9 | 1,654 | 2.42 | .15 | .28 |
| Flaxseed | 51 | 10.4 | .7 | 3,409 | 2.70 | .08 | .15 |
| Fruit (other than apples) | 99 | 11.6 | 1.1 | 2,181 | 3.53 | .16 | .28 |
| Hay | 761 | 8.3 | .7 | 2,786 | 2.32 | .08 | .19 |
| Hemp [a] | 7 | 5.2 | .7 | 3,393 | 2.10 | .06 | .23 |
| Hogs (live) | 316 | 7.9 | .7 | [b] 1,941 | 2.00 | [b] .10 | [b] .25 |
| Hops | 14 | 11.7 | 1.0 | 3,665 | 3.89 | .11 | .19 |
| Oats | 798 | 7.3 | .6 | 2,772 | 1.82 | .07 | .19 |
| Peanuts | 19 | 8.1 | .6 | 1,363 | 1.67 | .12 | .30 |
| Potatoes | 569 | 8.2 | .7 | 2,679 | 2.34 | .09 | .22 |
| Rice | 18 | 7.5 | .8 | 2,407 | 2.70 | .11 | .29 |
| Rye | 78 | 8.4 | .7 | 2,625 | 2.23 | .08 | .19 |
| Timothy seed [c] | 5 | 8.0 | .8 | 2,410 | 1.92 | .08 | .20 |
| Tobacco | 113 | 9.8 | .8 | 2,248 | 2.28 | .10 | .20 |
| Vegetables (other than potatoes) | 152 | 9.8 | .9 | 1,852 | 2.84 | .15 | .31 |
| Wheat | 1,051 | 9.4 | .8 | 3,323 | 2.86 | .09 | .19 |
| Wool | 41 | 39.8 | 5.6 | 4,869 | 21.39 | .44 | .22 |

[a] Kentucky only. [b] Average for six States only. [c] Iowa only.

## APPLES.

Apples were reported as a surplus crop so generally by the correspondents in this investigation that a fairly good basis is afforded for finding average conditions of hauling this fruit from farms in the United States. Owing to the small number of returns from some States, the averages for the geographic divisions and for the United States in Table 2 should be used in comparison when the figures for a single State are considered.

The high cost per 100 pounds for hauling apples from farms in the South Central Division is due largely to the small loads taken, and in the Western Division the long time for the average round trip makes the cost per 100 pounds twice the average for the North and South Atlantic and North Central Divisions.

It is to be noted in connection with this product that it is the practice in some sections for the farmers to sell their apples on the trees, the buyer to do all the picking and hauling. This, however, does not invalidate the figures as given in Table 2.

TABLE 2.—*Average cost of hauling* **APPLES** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| Maine | 5 | 8.8 | 1.3 | 2,180 | $4.74 | $0.22 |
| New Hampshire | 5 | 6.2 | .5 | 2,630 | 2.02 | .08 |
| Vermont | 1 | 7.1 | .7 | 3,000 | 2.62 | .09 |
| Massachusetts | 2 | 9.2 | .6 | 3,250 | 2.63 | .08 |
| Connecticut | 1 | 10.6 | .7 | 2,000 | 2.80 | .14 |
| New York | 15 | 7.4 | .6 | 2,523 | 2.15 | .09 |
| New Jersey | 3 | 7.1 | .7 | 2,667 | 2.51 | .09 |
| Pennsylvania | 8 | 8.2 | .8 | 2,362 | 2.73 | .12 |
| Virginia | 7 | 10.9 | 1.0 | 2,750 | 2.88 | .10 |
| West Virginia | 11 | 10.0 | 1.1 | 2,332 | 4.00 | .17 |
| Ohio | 5 | 7.0 | .7 | 2,170 | 2.14 | .10 |
| Indiana | 3 | 9.7 | 1.2 | 2,283 | 4.20 | .18 |
| Illinois | 6 | 5.8 | .5 | 2,367 | 1.25 | .05 |
| Michigan | 4 | 9.1 | .7 | 2,538 | 2.06 | .08 |
| Missouri | 13 | 10.5 | 1.0 | 2,108 | 2.56 | .12 |
| Kentucky | 4 | 11.6 | .8 | 1,600 | 2.20 | .14 |
| Tennessee | 8 | 11.2 | 1.0 | 1,556 | 2.62 | .17 |
| Arkansas | 6 | 19.2 | 2.0 | 1,700 | 4.76 | .28 |
| Oregon | 3 | 11.8 | 1.9 | 2,583 | 6.02 | .23 |
| California | 4 | 15.6 | 1.7 | 4,500 | 10.40 | .23 |
| Geographic division: | | | | | | |
| North Atlantic | 40 | 7.9 | .7 | 2,490 | 2.53 | .10 |
| South Atlantic | 18 | 10.5 | 1.0 | 2,584 | 3.18 | .12 |
| North Central | 31 | 8.5 | .8 | 2,267 | 2.26 | .10 |
| South Central | 18 | 13.8 | 1.2 | 1,617 | 3.11 | .19 |
| Western | 7 | 13.7 | 1.8 | 3,558 | 8.36 | .23 |
| States represented | 114 | 9.6 | .9 | 2,300 | 2.79 | .12 |

## BARLEY.

In the table for barley (Table 3) the large average loads in the western geographic division are due to the use of trailer wagons, such as are mentioned on page 44.

The average costs of hauling barley range from 4 cents per 100 pounds, or 1.9 cents per bushel, in Ohio, to 19 cents per 100 pounds, or 9.1 cents per bushel, in Montana. However, the greater part of the barley of the western States and Territories is hauled from farms to shipping points as cheaply as in the country east of the Rocky Mountains, the large crop of California, which is hauled for 6 cents per 100 pounds, being of sufficient importance to offset the much smaller crops in Washington, Idaho, Nevada, and Montana, which cost more than twice as much to haul from farms.

18826—No. 49—07——3

TABLE 3.—*Average cost of hauling* **BARLEY** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds |
| Ohio | 4 | 4.6 | 0.4 | 3,238 | $1.25 | $0.04 |
| Illinois | 3 | 4.6 | .6 | 2,467 | 1.80 | .07 |
| Michigan | 5 | 7.9 | .6 | 2,400 | 1.89 | .08 |
| Wisconsin | 20 | 8.2 | .6 | 2,968 | 1.79 | .06 |
| Minnesota | 33 | 8.1 | .6 | 3,038 | 1.97 | .06 |
| Iowa | 38 | 6.2 | .6 | 2,469 | 1.84 | .07 |
| North Dakota | 18 | 9.9 | .7 | 4,066 | 3.37 | .08 |
| South Dakota | 19 | 11.2 | .8 | 3,129 | 3.00 | .10 |
| Nebraska | 10 | 11.7 | 1.0 | 2,905 | 3.00 | .10 |
| Kansas | 17 | 11.7 | .8 | 3,088 | 2.52 | .08 |
| Montana | 4 | 14.6 | 1.1 | 2,750 | 5.16 | .19 |
| Colorado | 3 | 15.9 | .7 | 2,600 | 2.57 | .10 |
| Arizona | 4 | 10.5 | 1.0 | 4,125 | 4.75 | .12 |
| Utah | 2 | 10.6 | .7 | 3,000 | 2.28 | .08 |
| Nevada | 2 | 21.9 | 2.8 | 11,000 | 16.10 | .15 |
| Idaho | 5 | 13.4 | 1.4 | 4,292 | 6.79 | .16 |
| Washington | 6 | 9.9 | 1.1 | 3,392 | 4.86 | .14 |
| Oregon | 10 | 11.6 | 1.1 | 4,275. | 4.34 | .10 |
| California | 23 | 9.8 | .9 | 7,300 | 4.65 | .06 |
| Geographic division: | | | | | | |
| North Central | 167 | 8.2 | .6 | 2,977 | 1.99 | .07 |
| Western | 59 | 10.3 | 1.0 | 6,240 | 4.94 | .08 |
| States and Territory represented | 226 | 8.8 | .7 | 3,970 | 2.67 | .07 |

## BEANS.

The average cost of hauling beans in Michigan is 1 cent per 100 pounds less than in New York, and 6 cents more in California than in Michigan. In New York the average time for a round trip and the average weight of load are about the same as in Michigan, but the cost of hiring a team in the latter State is lower than in New York. The long time taken for an average round trip in Californina, which is equal to nearly three times the average for New York and Michigan, is partly offset by the large average load in California, which weighs more than twice as much as the average load in each of the other two States. The averages for the United States, in Table 4, are influenced much more by the figures for New York and Michigan than by those for California, owing to the relatively large production of beans in the two first-named States.

TABLE 4.—*Average cost of hauling* **BEANS** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| New York | 5 | 3.9 | 0.6 | 2,550 | $2.13 | $0.08 |
| Michigan | 13 | 9.9 | .6 | 2,654 | 1.75 | .07 |
| California | 4 | 16.8 | 1.7 | 5,750 | 7.75 | .13 |
| States represented | 22 | 9.0 | .8 | 3,172 | 2.75 | .09 |

## BUCKWHEAT.

Although Table 5 is based upon eight replies from correspondents, the data for distance, time, and cost are so nearly in accord for the two States that it is fair to accept the results as containing no serious error. It will be noted that the average cost per 100 pounds for hauling buckwheat in the United States is the same as for hauling rice and hops.

TABLE 5.—*Average cost of hauling* **BUCKWHEAT** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| New York | 4 | 9.2 | 0.8 | 2,625 | $3.00 | $0.11 |
| Pennsylvania | 4 | 7.1 | .7 | 2,250 | 2.45 | .11 |
| States represented | 8 | 8.2 | .8 | 2,438 | 2.72 | .11 |

## CORN.

The figures for corn, as given in Table 6, are based upon shelled corn, and where the returns for a county were expressed in terms of unshelled corn the net weight of load of shelled corn was computed by allowing 70 pounds to one bushel of unshelled and 56 pounds to one bushel of shelled corn. Thus, if an average load was given as 4,200 pounds of corn on the ear, it would contain 60 bushels, which would weigh when shelled 3,360 pounds. It was necessary to make this reduction in but a small number of cases, for most of the correspondents' replies upon which Table 6 is based were apparently for shelled corn.

The average cost per 100 pounds for hauling corn is less than for wheat, for the average distance hauled is a trifle shorter than for an average load of wheat.

Methods of hauling corn and other grain in different parts of the United States are discussed on page 42.

TABLE 6.—*Average cost of hauling* **CORN** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|---|
| New York | 3 | 8.6 | 0.9 | 2,917 | $3.45 | $0.12 |
| New Jersey | 4 | 3.2 | .4 | 2,475 | 1.38 | .06 |
| Pennsylvania | 22 | 6.6 | .6 | 3,020 | 2.11 | .07 |
| Maryland | 13 | 5.4 | .5 | 2,985 | 1.88 | .06 |
| Virginia | 32 | 8.6 | 1.0 | 2,416 | 3.23 | .13 |
| West Virginia | 17 | 10.2 | .8 | 2,124 | 2.74 | .13 |
| North Carolina | 31 | 10.6 | .8 | 1,584 | 1.96 | .12 |
| South Carolina | 7 | 11.7 | .9 | 1,607 | 2.11 | .13 |
| Georgia | 30 | 11.3 | 1.1 | 1,553 | 2.76 | .18 |
| Florida | 6 | 7.1 | .6 | 1,533 | 2.20 | .14 |
| Ohio | 51 | 6.0 | .6 | 3,025 | 1.93 | .06 |
| Indiana | 67 | 7.4 | .6 | 2,891 | 1.74 | .06 |
| Illinois | 66 | 5.7 | .5 | 2,754 | 1.47 | .05 |
| Michigan | 17 | 7.3 | .6 | 2,612 | 1.78 | .07 |
| Wisconsin | 6 | 7.8 | .6 | 2,583 | 1.75 | .07 |
| Minnesota | 21 | 7.8 | .7 | 2,807 | 2.24 | .08 |
| Iowa | 69 | 6.1 | .6 | 2,392 | 1.79 | .07 |
| Missouri | 63 | 8.8 | .8 | 2,122 | 2.02 | .10 |
| North Dakota | 31 | 10.6 | .8 | 1,584 | 1.96 | .12 |
| South Dakota | 22 | 13.3 | .9 | 2,932 | 3.07 | .10 |
| Nebraska | 55 | 9.1 | .7 | 2,960 | 2.15 | .07 |
| Kansas | 63 | 7.9 | .6 | 2,908 | 1.75 | .06 |
| Kentucky | 66 | 9.8 | 1.0 | 2,263 | 2.82 | .12 |
| Tennessee | 48 | 9.5 | .8 | 1,925 | 1.88 | .10 |
| Alabama | 19 | 12.9 | 1.2 | 1,689 | 3.13 | .19 |
| Mississippi | 10 | 11.6 | 1.3 | 1,395 | 3.06 | .22 |
| Louisiana | 5 | 11.9 | 1.2 | 1,850 | 3.48 | .19 |
| Texas | 71 | 14.0 | 1.2 | 2,084 | 3.35 | .16 |
| Indian Territory | 4 | 7.4 | .6 | 1,730 | 1.61 | .09 |
| Oklahoma | 20 | 11.9 | .9 | 2,420 | 2.56 | .11 |
| Arkansas | 25 | 13.0 | 1.2 | 1,642 | 3.26 | .20 |
| Colorado | 4 | 24.0 | 2.1 | 3,375 | 6.17 | .18 |
| New Mexico | 8 | 29.4 | 2.7 | 2,668 | 10.12 | .38 |
| Arizona | 2 | 11.5 | 1.3 | 3,750 | 6.82 | .18 |
| California | 3 | 8.5 | .9 | 3,133 | 3.82 | .12 |
| Geographic division: | | | | | | |
| North Atlantic | 29 | 5.9 | .6 | 2,851 | 2.12 | .07 |
| South Atlantic | 136 | 7.8 | .8 | 2,479 | 2.66 | .11 |
| North Central | 531 | 7.1 | .6 | 2,758 | 1.78 | .06 |
| South Central | 268 | 11.0 | .9 | 2,078 | 2.43 | .12 |
| Western | 17 | 13.7 | 1.3 | 3,214 | 4.95 | .15 |
| States and Territories represented. | 981 | 7.4 | .6 | 2,696 | 1.78 | .07 |

## COTTON.

The weight of a load of cotton, in Table 7, refers in each instance to lint cotton, and in the few counties where the weight of load, as reported, referred to cotton in the seed the weight of the seed was not included when these returns were tabulated. The weight of seed in these instances was regarded as two-thirds of the total weight of the load, and the weight of lint cotton as one-third of the total.

With but few exceptions the returns for hauling this product were numerous enough to give a fair basis for obtaining the averages for each State and Territory. The exceptional figures given for Indian Territory and Colorado, on account of the relatively small crops, have scarcely any influence upon the averages for the South Central Division or the United States. The average cost of 9 cents per 100 pounds in three districts in Indian Territory and 42 cents in a single

county in Colorado are probably correct for the four regions embraced in the reports, but may or may not apply to the entire cotton area of the Territory and State named.

As in the case of nearly all other farm products, cotton is generally hauled to local shipping points by the farmers themselves, and hiring such work done is the exception. Owing to its high value, cotton may be transported profitably in much smaller loads and for longer distances than a less valuable article, as grain or hay. It is noted that the average load of cotton weighs about one-half as much as the average load of wheat in the United States, but a load of cotton, at prices prevailing in October, 1906, was worth more than four average loads of wheat.

For the United States the average cost of hauling cotton from farms to shipping points is about 80 cents per bale, and the average load is a fraction more than three bales. One-horse carts and wagons and ox carts are found more serviceable in hauling the main crops in the cotton region than in the grain country, and their use helps to account for the small average loads. It is of interest to see that one of the smallest average loads of cotton for any State or Territory is in Florida, where about one-half the crop consists of Sea Island cotton, a variety much more valuable than the rest of the cotton produced in the United States.

TABLE 7.—*Average cost of hauling* **COTTON** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| Virginia | 6 | 8.7 | 0.7 | 1,350 | $2.42 | $0.18 |
| North Carolina | 49 | 9.8 | .8 | 1,528 | 1.98 | .13 |
| South Carolina | 26 | 10.3 | .8 | 1,658 | 2.10 | .13 |
| Georgia | 91 | 9.1 | .8 | 1,545 | 2.11 | .14 |
| Florida | 13 | 10.1 | 1.0 | 1,373 | 3.16 | .23 |
| Missouri | 5 | 15.2 | 1.5 | 1,690 | 3.52 | .21 |
| Tennessee | 19 | 9.8 | .8 | 2,011 | 1.98 | .10 |
| Alabama | 47 | 12.6 | 1.1 | 1,443 | 2.77 | .19 |
| Mississippi | 53 | 11.0 | 1.1 | 1,505 | 2.84 | .19 |
| Louisiana | 33 | 10.4 | 1.0 | 1,845 | 3.21 | .17 |
| Texas | 134 | 15.0 | 1.3 | 1,948 | 3.54 | .18 |
| Indian Territory | 3 | 7.9 | .7 | 1,767 | 1.65 | .09 |
| Oklahoma | 16 | 10.9 | 1.1 | 2,238 | 3.06 | .14 |
| Arkansas | 59 | 12.1 | 1.2 | 1,603 | 3.23 | .20 |
| Colorado | 1 | 28.3 | 2.8 | 2,000 | 8.40 | .42 |
| Geographic division: | | | | | | |
| South Atlantic | 185 | 9.6 | .8 | 1,572 | 2.10 | .13 |
| South Central[a] | 370 | 12.7 | 1.1 | 1,754 | 3.06 | .17 |
| States and Territories represented | 555 | 11.8 | 1.0 | 1,702 | 2.76 | .16 |

[a] Including 5 counties in Missouri and 1 county in Colorado.

## COTTONSEED.

Only one out of five correspondents who reported cotton as a crop hauled from farms to shipping points reported cottonseed also, and more than one-half of the schedules mentioning cottonseed were sent from Georgia, Alabama, and Mississippi. The average cost of hauling this product in the United States is practically the same as for cotton, as appears in Table 8.

TABLE 8.—*Average cost of hauling* **COTTONSEED** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| North Carolina | 5 | 9.1 | 0.7 | 1,800 | $1.58 | $0.09 |
| South Carolina | 7 | 11.0 | .8 | 1,679 | 2.37 | .14 |
| Georgia | 22 | 9.1 | .8 | 1,511 | 2.05 | .14 |
| Alabama | 14 | 13.6 | 1.0 | 1,450 | 2.61 | .18 |
| Mississippi | 27 | 10.7 | 1.0 | 1,600 | 2.67 | .17 |
| Louisiana | 8 | 9.2 | .9 | 1,725 | 2.75 | .16 |
| Texas | 20 | 11.4 | 1.0 | 1,778 | 2.64 | .15 |
| Arkansas | 7 | 8.4 | .8 | 1,650 | 2.30 | .14 |
| States represented | 110 | 10.7 | .9 | 1,654 | 2.42 | .15 |

## FLAXSEED.

Returns of conditions for hauling flaxseed, or linseed, from farms to shipping points were received from four States only, and the averages obtained corresponded closely with those for wheat for the same States. The average cost of wagon transportation for flaxseed in the United States is equivalent to 4.5 cents per bushel and the average load contains 61 bushels. The large average load for the 19 flaxseed counties reported from Minnesota makes the average cost of hauling that product from farms in those regions 1 cent per 100 pounds less than the average for wheat in 49 counties of the same State. The figures for each of the four States are given in detail in Table 9.

TABLE 9.—*Average cost of hauling* **FLAXSEED** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| Minnesota | 19 | 8.3 | 0.6 | 3,232 | $2.02 | $0.06 |
| North Dakota | 16 | 10.7 | .8 | 3,769 | 3.44 | .09 |
| South Dakota | 13 | 13.6 | .9 | 2,935 | 3.82 | .13 |
| Kansas | 3 | 11.8 | .7 | 3,000 | 1.87 | .06 |
| States represented | 51 | 10.4 | .7 | 3,409 | 2.70 | .08 |

## FRUIT (OTHER THAN APPLES).

The weight of a wagonload of fruit, as given in Table 10, includes boxes, barrels, baskets, and other receptacles, whose weight bears a relation to the weight of the contents varying with the amount and kinds of fruit hauled and with the kind and size of receptacles. The average cost of transportation of this produce from farms is therefore better expressed in terms of a wagonload than by the 100 pounds. The average gross weight of a wagonload of fruit in the United States is practically one ton, and the cost of hauling a load about $3.50, one day being required for making the round trip of 11 or 12 miles between farm and railway station or local market. Table 10 gives the averages for wagon transportation of this group of products in 14 States and 1 Territory.

TABLE 10.—*Average cost of hauling* **FRUIT** *(other than apples) from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds |
| New York | 5 | 6.0 | 0.6 | 2,800 | $2.34 | $0.08 |
| New Jersey | 5 | 2.8 | .4 | 2,390 | 1.24 | .05 |
| Delaware | 1 | 10.6 | .7 | 1,500 | 2.28 | .15 |
| Maryland | 6 | 5.2 | .4 | 1,833 | 1.08 | .06 |
| Georgia | 14 | 9.5 | .8 | 1,521 | 1.97 | .13 |
| Florida | 14 | 5.7 | .5 | 1,250 | 1.55 | .12 |
| Kentucky | 5 | 13.8 | 1.3 | 2,070 | 3.90 | .19 |
| Tennessee | 9 | 12.4 | 1.1 | 1,867 | 3.06 | .16 |
| Mississippi | 4 | 12.6 | 1.3 | 1,625 | 3.98 | .24 |
| Arkansas | 9 | 14.2 | 1.3 | 1,694 | 3.15 | .19 |
| New Mexico | 4 | 27.5 | 2.0 | 2,063 | 5.38 | .26 |
| Utah | 3 | 21.4 | 2.1 | 3,667 | 6.66 | .18 |
| Washington | 8 | 12.3 | 1.3 | 2,569 | 6.10 | .24 |
| Oregon | 4 | 9.3 | .7 | 2,375 | 2.53 | .11 |
| California | 8 | 10.9 | 1.3 | 3,488 | 5.41 | .16 |
| States and Territory represented | 99 | 11.6 | 1.1 | 2,181 | 3.53 | .16 |

## HAY.

Hay was reported as a surplus crop by correspondents in more States than was any other product, but the total number of counties reported in Table 11 is less than the number for wheat, corn, or oats. The cost of hauling hay forms a large part of the value of the load. The average farm price of hay on December 1, 1905, being $8.52 per ton, the value of an average load in the United States on that date would be $11.87, while the cost of hauling the load would be $2.32, or about one-fifth of the value.

TABLE 11.—*Average cost of hauling* **HAY** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|---|
| Maine | 9 | 7.0 | 0.6 | 2,260 | $2.18 | $0.10 |
| New Hampshire | 6 | 6.5 | .6 | 2,692 | 2.33 | .09 |
| Vermont | 5 | 6.5 | .6 | 2,450 | 1.92 | .08 |
| Massachusetts | 1 | 7.1 | .4 | 1,650 | 1.60 | .10 |
| Rhode Island | 1 | 7.1 | .4 | 1,500 | 1.20 | .08 |
| Connecticut | 3 | 3.7 | .5 | 2,333 | 2.00 | .09 |
| New York | 28 | 6.6 | .6 | 2,748 | 2.23 | .08 |
| New Jersey | 7 | 3.5 | .6 | 2,536 | 2.08 | .08 |
| Pennsylvania | 27 | 6.9 | .7 | 2,785 | 2.62 | .09 |
| Maryland | 6 | 6.2 | .7 | 4,417 | 3.50 | .08 |
| Virginia | 12 | 7.6 | .6 | 3,100 | 1.89 | .06 |
| West Virginia | 11 | 8.0 | .7 | 2,068 | 2.31 | .11 |
| North Carolina | 8 | 11.2 | .8 | 1,625 | 1.90 | .12 |
| South Carolina | 2 | 9.3 | .8 | 1,800 | 2.00 | .11 |
| Georgia | 23 | 10.3 | .9 | 1,635 | 2.41 | .15 |
| Florida | 4 | 9.9 | .8 | 1,488 | 3.00 | .20 |
| Ohio | 38 | 6.5 | .6 | 3,004 | 1.93 | .06 |
| Indiana | 47 | 7.6 | .7 | 2,907 | 2.08 | .07 |
| Illinois | 45 | 6.0 | .6 | 2,683 | 1.73 | .06 |
| Michigan | 47 | 8.0 | .7 | 2,754 | 2.24 | .08 |
| Wisconsin | 24 | 9.8 | .7 | 2,638 | 2.18 | .08 |
| Minnesota | 22 | 8.8 | .8 | 2,807 | 2.67 | .10 |
| Iowa | 34 | 6.3 | .6 | 2,291 | 1.75 | .08 |
| Missouri | 39 | 9.0 | .8 | 2,090 | 2.05 | .10 |
| South Dakota | 4 | 9.7 | .6 | 2,875 | 1.80 | .06 |
| Nebraska | 20 | 8.9 | .7 | 3,202 | 2.44 | .08 |
| Kansas | 24 | 7.6 | .6 | 2,623 | 1.67 | .06 |
| Kentucky | 26 | 9.1 | .8 | 2,259 | 2.10 | .09 |
| Tennessee | 32 | 9.1 | .8 | 1,928 | 1.89 | .10 |
| Alabama | 14 | 13.3 | 1.2 | 1,636 | 2.98 | .18 |
| Mississippi | 14 | 13.0 | 1.1 | 1,529 | 2.70 | .18 |
| Texas | 36 | 14.0 | 1.1 | 1,928 | 2.98 | .15 |
| Indian Territory | 2 | 8.1 | .6 | 2,000 | 1.57 | .08 |
| Oklahoma | 7 | 9.1 | .7 | 2,536 | 1.88 | .07 |
| Arkansas | 13 | 10.1 | .9 | 1,777 | 2.61 | .15 |
| Montana | 13 | 11.7 | 1.1 | 3,062 | 5.09 | .17 |
| Wyoming | 4 | 18.0 | 1.5 | 2,075 | 5.62 | .27 |
| Colorado | 23 | 10.5 | 1.1 | 3,220 | 4.75 | .15 |
| New Mexico | 15 | 21.3 | 1.8 | 2,317 | 5.99 | .26 |
| Arizona | 5 | 10.5 | .9 | 3,700 | 4.05 | .11 |
| Utah | 4 | 13.5 | 1.2 | 3,538 | 3.97 | .11 |
| Nevada | 2 | 16.1 | 3.5 | 9,000 | 26.25 | .29 |
| Idaho | 7 | 13.7 | 1.1 | 3,214 | 5.07 | .16 |
| Washington | 17 | 9.1 | .8 | 2,912 | 3.50 | .12 |
| Oregon | 12 | 11.0 | .9 | 3,104 | 3.19 | .10 |
| California | 18 | 9.2 | .9 | 5,406 | 4.43 | .08 |
| Geographic division: | | | | | | |
| North Atlantic | 87 | 6.5 | .6 | 2,603 | 2.21 | .08 |
| South Atlantic | 66 | 8.3 | .7 | 2,669 | 2.31 | .09 |
| North Central | 344 | 7.8 | .7 | 2,668 | 2.11 | .08 |
| South Central | 144 | 10.7 | .9 | 2,074 | 2.36 | .11 |
| Western | 120 | 11.5 | 1.1 | 3,963 | 4.91 | .12 |
| States and Territories represented | 761 | 8.3 | .7 | 2,786 | 2.32 | .08 |

## HOGS (LIVE).

In at least 15 of the North and South Central States, live hogs are hauled in wagons from farms to shipping points by a considerable number of farmers. This method of getting the animals to the station is often found more satisfactory than driving them on foot, especially where the distance traversed is several miles and the hogs are heavy. From 4 to 6 hogs make a wagonload in some communities, and the average weight of a load of hogs in the United States is about 1 ton. The States for which average weights of load are given in Table 12 are the leading States in the production of hogs, so that the omission of average weights of load for the rest of the States does not affect materially the average for the United States. Of the 316 counties in which hogs are reported to be hauled in wagons, more than one-half are in Iowa, Nebraska, Missouri, and Kansas.

TABLE 12.—*Average cost of hauling* **HOGS (LIVE)** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load | Cost per 100 pounds. |
| Ohio | 18 | 5.9 | 0.8 | (a) | $2.55 | (a) |
| Indiana | 19 | 7.6 | .6 | (a) | 1.75 | (a) |
| Illinois | 26 | 6.0 | .5 | 1,879 | 1.44 | $0.08 |
| Michigan | 14 | 7.8 | .6 | (a) | 1.85 | (a) |
| Wisconsin | 20 | 8.3 | .6 | (a) | 1.79 | (a) |
| Minnesota | 16 | 7.1 | .6 | (a) | 1.91 | (a) |
| Iowa | 57 | 6.2 | .6 | 1,875 | 1.76 | .09 |
| Missouri | 32 | 9.3 | .8 | 2,500 | 1.92 | .08 |
| South Dakota | 18 | 10.7 | .8 | 1,500 | 2.74 | .18 |
| Nebraska | 42 | 8.7 | .7 | 1,850 | 2.15 | .12 |
| Kansas | 29 | 7.7 | .6 | 1,700 | 1.69 | .10 |
| Kentucky | 4 | 7.5 | .6 | (a) | 1.76 | (a) |
| Tennessee | 7 | 8.5 | .7 | (a) | 1.60 | (a) |
| Texas | 6 | 15.7 | 1.3 | (a) | 3.15 | (a) |
| Oklahoma | 8 | 9.1 | .7 | (a) | 2.02 | (a) |
| Geographic division: | | | | | | |
| North Central | 291 | 7.3 | .6 | b 1,941 | 1.74 | b .10 |
| South Central | 25 | 11.0 | .9 | (a) | 2.32 | (a) |
| States and Territory represented | 316 | 7.9 | .7 | b 1,941 | 2.00 | b .10 |

a No data. b Six States only.

## HOPS.

The production of hops is limited to a small number of counties in the United States, and the reports from the 14 counties upon which Table 13 is based cover a large part of the hop country. The small number of returns and the variety of roads, especially in the Pacific northwest, are apt to lead to great differences in the averages obtained. The reports from Washington mentioned high costs per day for hauling and small loads carried, while the Oregon correspondents gave low prices for hiring and told of hauling large loads down grade from farms in the uplands to shipping points in the valleys.

The resulting average cost per 100 pounds for hauling in Washington is 37 cents, and in Oregon only 7 cents.

In this connection it is interesting to note that, according to the Twelfth Census of the United States, the average farm value of hops in Washington was 8.7 cents per pound, and in Oregon 6.4 cents per pound, and the average yield per acre was 1,287 pounds in Washington and 951 pounds in Oregon. There is some justification for expecting other marked differences between these two neighboring States in conditions relating to the hop industry, but the difference of 30 cents per 100 pounds in the average cost of hauling from farms to shipping points might possibly be reduced if a greater number of returns from each State were available.

TABLE 13.—*Average cost of hauling* **HOPS** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| New York | 2 | 10.6 | 0.7 | 2,000 | $2.72 | $0.14 |
| Washington | 4 | 12.4 | 1.3 | 1,512 | 5.52 | .37 |
| Oregon | 6 | 10.5 | .8 | 3,333 | 2.40 | .07 |
| California | 2 | 14.8 | 1.8 | 8,500 | 9.00 | .11 |
| States represented | 14 | 11.7 | 1.0 | 3,665 | 3.89 | .11 |

## OATS.

Of the 798 counties represented in Table 14, 521 are in the North Central States, 123 in the Western Division, 101 in the South Central, 32 in the North Atlantic, and only 21 in the South Atlantic States. The average cost per 100 pounds for hauling oats in the United States is the same as for corn and barley, but the average cost per bushel is only 2.2 cents. An average wagonload of oats in the United States, weighing 2,772 pounds, contains about 87 bushels. Where oats are hauled in bulk the sides and ends of the wagon box are made higher by the use of boards provided especially for this purpose.

Methods of hauling oats and other grain are discussed on page 42.

TABLE 14.—*Average cost of hauling* **OATS** *from farms to shipping ponts.*

| State or Territory. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| New York | 8 | 7.8 | 0.6 | 2,619 | $2.21 | $0.08 |
| Pennsylvania | 24 | 7.1 | .7 | 2,875 | 2.48 | .09 |
| Virginia | 8 | 7.5 | .7 | 2,644 | 2.28 | .09 |
| West Virginia | 5 | 10.0 | .8 | 2,410 | 3.12 | .13 |
| Georgia | 8 | 12.7 | 1.1 | 1,575 | 2.62 | .17 |
| Ohio | 46 | 6.2 | .6 | 3,120 | 1.96 | .06 |
| Indiana | 46 | 6.6 | .6 | 3,021 | 1.75 | .06 |
| Illinois | 58 | 5.7 | .5 | 2,847 | 1.47 | .05 |
| Michigan | 44 | 7.8 | .6 | 2,710 | 1.81 | .07 |
| Wisconsin | 35 | 8.8 | .7 | 2,588 | 2.09 | .08 |
| Minnesota | 44 | 8.3 | .7 | 2,916 | 2.25 | .08 |
| Iowa | 73 | 6.1 | .6 | 2,354 | 1.78 | .08 |
| Missouri | 42 | 8.6 | .8 | 2,335 | 2.03 | .09 |
| North Dakota | 20 | 10.7 | .7 | 3,738 | 3.23 | .09 |
| South Dakota | 32 | 12.7 | .9 | 2,880 | 3.23 | .11 |
| Nebraska | 51 | 9.1 | .7 | 2,826 | 2.14 | .08 |
| Kansas | 30 | 7.6 | .6 | 2,835 | 1.69 | .06 |
| Kentucky | 18 | 10.5 | 1.1 | 2,256 | 2.99 | .13 |
| Tennessee | 24 | 9.8 | .8 | 1,888 | 1.86 | .10 |
| Alabama | 2 | 15.5 | 1.4 | 1,500 | 3.50 | .23 |
| Texas | 43 | 13.8 | 1.1 | 2,358 | 3.02 | .13 |
| Indian Territory | 2 | 8.8 | .6 | 1,900 | 1.65 | .09 |
| Oklahoma | 12 | 12.9 | .9 | 2,354 | 2.51 | .11 |
| Montana | 17 | 13.9 | 1.3 | 3,076 | 5.69 | .19 |
| Wyoming | 7 | 22.1 | 1.9 | 2,829 | 7.03 | .25 |
| Colorado | 27 | 12.5 | 1.1 | 3,307 | 4.50 | .14 |
| New Mexico | 4 | 18.0 | 1.7 | 2,212 | 5.42 | .25 |
| Arizona | 2 | 13.8 | 1.3 | 4,250 | 7.15 | .17 |
| Utah | 10 | 21.9 | 2.2 | 3,665 | 6.71 | .18 |
| Nevada | 1 | 12.0 | 1.4 | 6,000 | 10.50 | .18 |
| Idaho | 9 | 13.6 | 1.1 | 3,278 | 4.86 | .15 |
| Washington | 14 | 9.8 | 1.0 | 2,654 | 4.00 | .15 |
| Oregon | 15 | 10.3 | .9 | 3,783 | 3.24 | .09 |
| California | 17 | 9.9 | .9 | 6,229 | 4.31 | .07 |
| Geographic division: | | | | | | |
| North Atlantic | 32 | 7.5 | .6 | 2,713 | 2.18 | .08 |
| South Atlantic | 21 | 9.4 | .8 | 2,318 | 2.56 | .11 |
| North Central | 521 | 6.9 | .6 | 2,766 | 1.82 | .07 |
| South Central | 101 | 13.0 | 1.0 | 2,289 | 2.74 | .12 |
| Western | 123 | 11.5 | 1.1 | 3,683 | 4.55 | .12 |
| States and Territories represented | 798 | 7.3 | .6 | 2,772 | 1.82 | .07 |

## PEANUTS.

The average cost of hauling peanuts from farms to shipping points in the United States varies but little from any one of the average costs for the three States mentioned in Table 15, the general average being 2 cents per 100 pounds lower than the figure for Virginia, 2 cents higher than the one for Tennessee, and only 1 cent above the average for North Carolina.

A load of peanuts is bulky but light. The average load in Virginia contains 58 bushels, the average load in North Carolina 64, in Tennessee 72, and the average for the United States is 62 bushels, or 1,363 pounds.

TABLE 15.—*Average cost of hauling* **PEANUTS** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| Virginia | 7 | 8.8 | 0.6 | 1,271 | $1.82 | $0.14 |
| North Carolina | 9 | 7.3 | .6 | 1,400 | 1.57 | .11 |
| Tennessee | 3 | 8.8 | .7 | 1,667 | 1.69 | .10 |
| States represented | 19 | 8.1 | .6 | 1,363 | 1.67 | .12 |

## POTATOES.

Irish, or white, potatoes only are regarded in Table 16. In many ways they are hauled under conditions similar to those under which grain is hauled, and the average cost per 100 pounds for hauling potatoes from farms to shipping points is the same as for wheat and 2 cents more than for oats, corn, or barley.

The averages for the United States are affected more by the figures for the North Atlantic and North Central States than by the other States and the Territories, since about three-fourths of the potato crop of the United States is produced east of the Rocky Mountains and north of the Potomac and Ohio rivers and southern boundaries of Missouri and Kansas.

The average cost of hauling from farms to shipping points in this region is 9 cents per 100 pounds, or 5.4 cents per bushel. The lowest average cost is for three counties in Rhode Island, where an average of three trips per day is made to and from shipping points, and the highest average cost in the North Atlantic and North Central States is in South Dakota, where the average time of round trip between farm and shipping point is longer than one working day.

TABLE 16.—*Average cost of hauling* **POTATOES** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|---|
| Maine | 9 | 7.6 | 0.7 | 2,393 | $2.58 | $0.11 |
| New Hampshire | 5 | 6.6 | .6 | 2,330 | 2.21 | .09 |
| Vermont | 7 | 7.1 | .6 | 2,321 | 1.93 | .08 |
| Massachusetts | 3 | 10.6 | .6 | 2,300 | 2.40 | .10 |
| Rhode Island | 3 | 5.0 | .3 | 1,933 | .98 | .05 |
| Connecticut | 2 | 6.7 | .7 | 2,530 | 2.80 | .11 |
| New York | 34 | 7.1 | .7 | 2,836 | 2.49 | .09 |
| New Jersey | 9 | 4.8 | .6 | 2,583 | 2.08 | .08 |
| Pennsylvania | 22 | 6.6 | .7 | 2,809 | 2.61 | .09 |
| Delaware | 1 | 10.6 | .7 | 1,500 | 2.80 | .19 |
| Maryland | 7 | 5.7 | .5 | 2,556 | 1.62 | .06 |
| Virginia | 22 | 9.1 | .8 | 1,880 | 2.30 | .12 |
| West Virginia | 17 | 12.2 | 1.2 | 1,965 | 4.21 | .21 |
| North Carolina | 27 | 11.4 | 1.1 | 1,437 | 2.92 | .20 |
| South Carolina | 3 | 9.9 | .7 | 1,267 | 2.01 | .16 |
| Georgia | 16 | 11.0 | 1.0 | 1,466 | 2.52 | .17 |
| Florida | 9 | 7.7 | .6 | 1,544 | 2.05 | .13 |
| Ohio | 22 | 7.2 | .7 | 2,748 | 2.39 | .09 |
| Indiana | 12 | 6.4 | .6 | 3,075 | 1.72 | .06 |
| Illinois | 13 | 6.0 | .6 | 2,700 | 1.94 | .07 |
| Michigan | 47 | 8.0 | .7 | 2,766 | 2.25 | .08 |
| Wisconsin | 28 | 9.5 | .8 | 2,595 | 2.46 | .09 |
| Minnesota | 20 | 9.7 | .8 | 2,890 | 2.68 | .09 |
| Iowa | 14 | 5.9 | .5 | 2,293 | 1.48 | .06 |
| Missouri | 13 | 9.4 | .8 | 2,035 | 2.05 | .10 |
| South Dakota | 4 | 15.5 | 1.1 | 2,950 | 3.51 | .12 |
| Nebraska | 14 | 11.1 | .8 | 2,732 | 2.64 | .10 |
| Kansas | 6 | 5.2 | .6 | 2,658 | 1.82 | .07 |
| Kentucky | 19 | 12.4 | 1.4 | 1,834 | 4.44 | .24 |
| Tennessee | 19 | 10.0 | .8 | 1,874 | 1.99 | .11 |
| Alabama | 8 | 14.0 | 1.2 | 1,450 | 3.14 | .22 |
| Mississippi | 11 | 11.9 | 1.1 | 1,336 | 2.85 | .21 |
| Louisiana | 6 | 12.6 | 1.3 | 1,400 | 4.00 | .29 |
| Texas | 26 | 12.4 | 1.1 | 1,460 | 2.86 | .20 |
| Indian Territory | 3 | 7.9 | .6 | 1,867 | 1.65 | .09 |
| Arkansas | 11 | 13.6 | 1.3 | 1,523 | 3.04 | .20 |
| Montana | 9 | 14.0 | 1.2 | 2,811 | 5.47 | .19 |
| Wyoming | 5 | 25.5 | 2.3 | 2,860 | 9.20 | .32 |
| Colorado | 20 | 12.2 | 1.1 | 3,100 | 4.71 | .15 |
| New Mexico | 3 | 22.7 | 2.1 | 1,800 | 9.09 | .50 |
| Utah | 5 | 10.1 | .7 | 3,300 | 2.31 | .07 |
| Idaho | 4 | 15.5 | 1.4 | 3,125 | 5.17 | .17 |
| Washington | 15 | 7.8 | .8 | 2,617 | 3.38 | .13 |
| Oregon | 9 | 9.7 | .9 | 4,028 | 3.15 | .08 |
| California | 7 | 12.0 | 1.1 | 4,914 | 4.72 | .10 |
| Geographic division: | | | | | | |
| North Atlantic | 94 | 7.0 | .7 | 2,717 | 2.55 | .09 |
| South Atlantic | 102 | 9.6 | .9 | 1,871 | 2.74 | .15 |
| North Central | 193 | 8.1 | .7 | 2,651 | 2.30 | .09 |
| South Central | 103 | 12.1 | 1.2 | 1,660 | 3.30 | .20 |
| Western | 77 | 11.3 | 1.0 | 3,615 | 4.05 | .11 |
| States and Territories represented. | 569 | 8.2 | .7 | 2,679 | 2.34 | .09 |

## RICE.

The returns from the South Atlantic States in regard to hauling rice were too few to permit satisfactory averages to be made for that region. In one county in North Carolina the average cost of hauling rice from farms is about 22 cents per 100 pounds, the average load of a wagon or cart being only 800 pounds, or about 18 bushels. A load twice that size, or as large as the average load of tobacco as reported from 23 counties in the same State, would reduce the average cost per 100 pounds for hauling rice to 11 cents. The high average for the

one county reported in Georgia, in Table 17, would probably be much reduced if returns from a few more counties were available.

While meager returns do not serve as a satisfactory basis for an average, they nevertheless represent individual cases and for that reason are of value as illustrations of some actual conditions. The average for the United States is largely influenced by the figures for Louisiana and Texas, on account of the relatively large crops of rice in those States.

The figures given in Table 17 refer to rough or unhulled rice.

TABLE 17.—*Average cost of hauling* **RICE** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| North Carolina | 1 | 10.6 | 0.7 | 800 | $1.75 | $0.22 |
| South Carolina | 2 | 7.9 | .8 | 1,375 | 2.00 | .15 |
| Georgia | 1 | 10.6 | 1.4 | 1,500 | 4.20 | .28 |
| Louisiana | 6 | 7.0 | .7 | 2,833 | 2.57 | .09 |
| Texas | 8 | 7.8 | .7 | 2,070 | 2.39 | .12 |
| States represented | 18 | 7.5 | .8 | 2,407 | 2.70 | .11 |

## RYE.

The relative insignificance of rye as a surplus crop is illustrated in the small number of States represented in Table 18. The average cost of hauling this grain from farms to shipping points in the United States is 8 cents per 100 pounds, or 4.5 cents per bushel. The smallest average load, equivalent to only 24 bushels, is reported for Georgia, where hauling outfits are used chiefly for cotton and where small loads prevail.

The largest average load, 67 bushels, is hauled in Ohio, where wagons are provided especially for hauling grain and other bulky products and where roads are reported as exceptionally good.

TABLE 18.—*Average cost of hauling* **RYE** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| New York | 4 | 8.2 | 0.7 | 2,400 | $2.84 | $0.12 |
| Georgia | 6 | 17.5 | 2.1 | 1,333 | 3.84 | .29 |
| Ohio | 4 | 4.4 | .6 | 3,763 | 2.10 | .06 |
| Illinois | 8 | 5.2 | .6 | 2,619 | 1.75 | .07 |
| Michigan | 11 | 7.0 | .6 | 2,641 | 1.81 | .07 |
| Wisconsin | 16 | 8.4 | .6 | 2,491 | 1.73 | .07 |
| Minnesota | 14 | 8.9 | .6 | 2,714 | 1.81 | .07 |
| Missouri | 3 | 6.6 | .6 | 2,333 | 1.50 | .06 |
| North Dakota | 3 | 13.2 | .9 | 3,433 | 3.67 | .11 |
| Nebraska | 9 | 11.2 | .9 | 2,911 | 2.97 | .10 |
| North Central division | 68 | 8.4 | .7 | 2,676 | 2.13 | .08 |
| States represented | 78 | 8.4 | .7 | 2,625 | 2.23 | .08 |

## TOBACCO.

Tobacco is hauled from farms to local markets or shipping points at a very low cost in proportion to its value. The average farm price in the United States December 1, 1905, was equivalent to $8.50 per 100 pounds, while the average cost of hauling that quantity was about 10 cents.

It will be noted that the cost of hauling this product is lowest in Maryland, Pennsylvania, and Ohio, and highest in Virginia, North Carolina, and South Carolina, where small loads are hauled long distances. The low cost in Maryland is due to the tobacco farms being near railroad stations or steamboat landings, so that farmers make an average of three trips a day. The large average load in Pennsylvania is partly due to the use of 4-horse teams by a number of farmers in the tobacco counties.

TABLE 19.—*Average cost of hauling* **TOBACCO** *from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| Pennsylvania | 3 | 7.8 | 0.6 | 4,333 | $2.40 | $0.06 |
| Maryland | 4 | 4.8 | .3 | 1,575 | .78 | .05 |
| Virginia | 13 | 11.5 | 1.1 | 1,688 | 3.46 | .20 |
| North Carolina | 23 | 12.7 | 1.1 | 1,552 | 2.72 | .18 |
| South Carolina | 3 | 12.4 | .8 | 1,500 | 1.80 | .12 |
| Ohio | 2 | 6.4 | .6 | 3,375 | 2.03 | .06 |
| Wisconsin | 4 | 9.1 | .6 | 1,988 | 1.73 | .09 |
| Kentucky | 53 | 9.1 | .8 | 2,471 | 2.22 | .09 |
| Tennessee | 8 | 10.7 | .8 | 1,625 | 1.73 | .11 |
| States represented | 113 | 9.8 | .8 | 2,248 | 2.28 | .10 |

## VEGETABLES (OTHER THAN POTATOES).

The comments made concerning fruits in Table 10, on page 23, apply in general also to Table 20, but the details of the two tables are not the same. The same States do not always appear in both tables, and the average cost per load for hauling miscellaneous vegetables is 69 cents less than for miscellaneous fruit. The average cost per 100 pounds, however, which includes all sorts of boxes, baskets, and other receptacles, works out to 1 cent less for vegetables than for fruit.

TABLE 20.—*Average cost of hauling* **VEGETABLES** *(other than potatoes) from farms to shipping points.*

| State. | Number of counties reported. | Average— | | | | |
|---|---|---|---|---|---|---|
| | | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
| Massachusetts | 6 | 8.8 | 0.6 | 2,650 | $2.60 | $0.10 |
| Rhode Island | 2 | 3.5 | .3 | 2,150 | 1.01 | .05 |
| Connecticut | 3 | 6.4 | .5 | 2,000 | 2.00 | .10 |
| New York | 13 | 7.0 | .7 | 3,477 | 2.53 | .07 |
| New Jersey | 5 | 5.0 | .6 | 2,540 | 2.13 | .08 |
| Virginia | 12 | 10.4 | .9 | 1,762 | 2.46 | .14 |
| West Virginia | 7 | 10.9 | 1.1 | 1,643 | 4.05 | .25 |
| North Carolina | 18 | 9.3 | .8 | 1,628 | 2.14 | .13 |
| Georgia | 16 | 13.1 | 1.2 | 1,334 | 3.10 | .23 |
| Florida | 19 | 6.9 | .7 | 1,289 | 2.15 | .17 |
| Kentucky | 9 | 13.4 | 1.4 | 1,578 | 4.07 | .26 |
| Alabama | 7 | 13.2 | 1.1 | 1,329 | 3.18 | .24 |
| Mississippi | 10 | 13.0 | 1.1 | 1,175 | 2.77 | .24 |
| Texas | 21 | 13.9 | 1.2 | 1,643 | 3.32 | .20 |
| Arkansas | 4 | 11.6 | 1.3 | 1,588 | 3.58 | .23 |
| Geographic division: | | | | | | |
| North Atlantic | 29 | 7.1 | .5 | 2,563 | 1.89 | .07 |
| South Atlantic | 72 | 10.1 | .9 | 1,531 | 2.66 | .17 |
| South Central | 51 | 13.0 | 1.2 | 1,463 | 3.32 | .23 |
| States represented | 152 | 9.8 | .9 | 1,852 | 2.84 | .15 |

## WHEAT.

More than one-half of the 1,051 reports upon which Table 21 is based came from the North Central States, where the average cost of hauling wheat from farms to shipping points is 4.8 cents per bushel, where the average load contains 50 bushels, and where, after delivering grain at the station, the average farmer reaches home in time for a few hours of farm work before supper. In eight of the dozen States composing the North Central Division, the average time of a round trip between farm and shipping point is only 0.6 of one day, so that by working an hour or two later than usual a man may make two round trips per day.

The average distance from wheat farms to shipping points in this group of States is 9 miles, about one-half mile less than the average for the United States. The longest average distance for any one State is 22.1 miles in Wyoming, and the longest distance for any one of the geographic divisions is 11.9 miles for the South Central Division. It is to be understood that with wheat, as with other products, the great size of average loads in the Western Division is due to the use of trailer wagons, as explained on page 44.

TABLE 21.—*Average cost of hauling* **WHEAT** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|---|
| New York | 13 | 5.9 | 0.6 | 2,577 | $2.23 | $0.09 |
| New Jersey | 5 | 4.1 | .6 | 2,500 | 2.13 | .09 |
| Pennsylvania | 27 | 6.8 | .6 | 3,157 | 2.18 | .07 |
| Delaware | 1 | 10.6 | .7 | 1,500 | 2.28 | .15 |
| Maryland | 15 | 5.3 | .5 | 2,820 | 1.80 | .06 |
| Virginia | 36 | 9.6 | 1.0 | 2,442 | 3.17 | .13 |
| West Virginia | 16 | 10.0 | .8 | 2,322 | 2.78 | .12 |
| North Carolina | 14 | 12.4 | 1.1 | 1,739 | 2.62 | .15 |
| Georgia | 6 | 14.0 | 1.2 | 1,817 | 2.95 | .16 |
| Ohio | 56 | 5.9 | .6 | 3,020 | 1.94 | .06 |
| Indiana | 67 | 7.4 | .6 | 2,948 | 1.75 | .06 |
| Illinois | 49 | 5.7 | .6 | 2,656 | 1.73 | .07 |
| Michigan | 47 | 7.1 | .6 | 2,798 | 1.79 | .06 |
| Wisconsin | 15 | 8.6 | .6 | 2,427 | 1.73 | .07 |
| Minnesota | 49 | 8.3 | .6 | 2,932 | 1.95 | .07 |
| Iowa | 34 | 6.6 | .6 | 2,521 | 1.84 | .07 |
| Missouri | 69 | 9.5 | .8 | 2,079 | 1.97 | .09 |
| North Dakota | 25 | 11.0 | .8 | 3,955 | 3.76 | .10 |
| South Dakota | 37 | 12.4 | .9 | 2,912 | 3.19 | .11 |
| Nebraska | 63 | 9.0 | .7 | 2,942 | 2.18 | .07 |
| Kansas | 77 | 8.9 | .6 | 2,976 | 1.76 | .06 |
| Kentucky | 68 | 9.4 | .9 | 2,281 | 2.51 | .11 |
| Tennessee | 48 | 9.6 | .8 | 1,971 | 1.90 | .10 |
| Alabama | 2 | 11.3 | .8 | 2,250 | 1.80 | .08 |
| Texas | 45 | 15.8 | 1.3 | 2,464 | 3.54 | .14 |
| Indian Territory | 3 | 6.2 | .7 | 1,867 | 1.87 | .10 |
| Oklahoma | 19 | 13.2 | 1.1 | 2,595 | 3.12 | .12 |
| Arkansas | 5 | 16.3 | 1.4 | 1,640 | 3.22 | .20 |
| Montana | 15 | 13.6 | 1.2 | 3,020 | 5.24 | .17 |
| Wyoming | 7 | 22.1 | 1.9 | 2,829 | 7.03 | .25 |
| Colorado | 25 | 12.2 | 1.1 | 3,542 | 4.11 | .12 |
| New Mexico | 11 | 20.9 | 1.9 | 2,069 | 6.48 | .32 |
| Arizona | 3 | 7.4 | .7 | 4,000 | 2.68 | .07 |
| Utah | 10 | 21.9 | 2.2 | 3,665 | 6.71 | .18 |
| Nevada | 2 | 21.9 | 2.8 | 11,000 | 16.10 | .15 |
| Idaho | 10 | 13.3 | 1.1 | 3,646 | 5.08 | .14 |
| Washington | 16 | 11.1 | 1.1 | 3,408 | 4.74 | .14 |
| Oregon | 15 | 10.3 | 1.0 | 4,467 | 4.00 | .09 |
| California | 26 | 10.2 | 1.0 | 7,169 | 5.24 | .07 |
| Geographic division: | | | | | | |
| North Atlantic | 45 | 6.2 | .6 | 2,874 | 2.20 | .08 |
| South Atlantic | 88 | 7.5 | .7 | 2,541 | 2.39 | .09 |
| North Central | 588 | 9.0 | .7 | 3,077 | 2.41 | .08 |
| South Central | 190 | 11.9 | 1.0 | 2,400 | 2.73 | .11 |
| Western | 140 | 11.0 | 1.1 | 5,140 | 5.07 | .10 |
| States and Territories represented | 1,051 | 9.4 | .8 | 3,323 | 2.86 | .09 |

## WOOL.

The average cost of hauling wool to shipping points is high on account of the great distances traversed, the average for the United States being 39.8 miles, and the distance in at least one county whose returns enter into the averages in Table 22 was 150 miles. Hauling over these long routes is usually done by freight wagons owned and driven by persons other than the producers of the wool, and the rates actually paid for hauling are used in these instances as the cost of wagon transportation from farm or ranch to shipping point. The large number of actual rates paid entering into the average cost of hauling wool in the United States makes this figure (44 cents per

100 pounds) appear to be one of the most accurate of the average costs determined for the United States for the articles mentioned in Tables 1 to 22, inclusive.

The value of an average load of wool ranges from $500 to $900 and allows for a high cost to get it to the shipping point, and even the cost of 71 cents per 100 pounds for the county reported in Arizona and the 5 counties in Oregon is not too large in proportion to the value of the load.

TABLE 22.—*Average cost of hauling* **WOOL** *from farms to shipping points.*

| State or Territory. | Number of counties reported. | Average— Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|---|
| Virginia | 2 | 22.6 | 3.0 | 2,050 | $12.00 | $0.59 |
| West Virginia | 1 | 2.8 | .4 | 2,500 | 2.00 | .08 |
| Ohio | 4 | 5.6 | .6 | 3,200 | 2.14 | .07 |
| Texas | 5 | 37.3 | 3.7 | 4,060 | 11.54 | .28 |
| Montana | 5 | 29.5 | 2.8 | 3,700 | 13.02 | .35 |
| Wyoming | 1 | 100.8 | 20 9 | 12,000 | 60 00 | .50 |
| Colorado | 2 | 19.4 | 1.8 | 3,625 | 5 62 | .16 |
| New Mexico | 6 | 32 4 | 2.8 | 2,083 | 8 51 | .41 |
| Arizona | 1 | 56 6 | 7.1 | 4,060 | 28 40 | .71 |
| Utah | 2 | 32 5 | 2 5 | 3,750 | 9.38 | .25 |
| Idaho | 1 | 19.4 | 1.1 | 2,500 | 4 95 | .20 |
| Washington | 2 | 28.3 | 3.2 | 3,000 | 14 40 | .48 |
| Oregon | 5 | 65 9 | 8.6 | 5,660 | 39 99 | .71 |
| California | 4 | 19.2 | 2.3 | 4,500 | 10.35 | .23 |
| Western Division | 29 | 44 0 | 6 6 | 5,221 | 26 00 | .50 |
| States represented | 41 | 39.8 | 5.6 | 4,869 | 21.39 | .44 |

## THE FARMERS' LONGEST HAULS.

The conditions of hauling from farms over the longest routes reported for each product are given in Tables 23 to 40. While there may be longer hauls for farming communities in the United States in the cases of some or all the crops mentioned in these tables, the instances as reported here serve to illustrate extreme costs of wagon transportation. It is not to be supposed that all or any considerable number of these great costs of hauling permit the products in question to be sold profitably at prices which would prevail in a large commercial center.

Potatoes hauled 70 miles over Colorado roads at a cost of 84 cents per bushel, as given in Table 23, could be sold only at some local market where prices were far above those in most parts of the United States; and the corn, rye, and vegetables carried over the Georgia mountains from the extreme northern part of the State down to Gainesville, a distance of some 60 miles, do not represent a considerable portion of the general supply of those products in Georgia, and their extensive production under such great costs of delivery is out of question.

By taking on the same load with grain or vegetables a considerable amount of poultry, eggs, and butter, a farmer can make his long trip to town pay, so that the total cost of hauling the load falls but slightly upon the less valuable part of it. A half-ton load of produce taken from farm to local market or shipping point at a cost of $16 might easily contain, in addition to several bushels of grain or potatoes, enough poultry, butter, and eggs to make the total value of the load from $30 to $50.

TABLE 23.—*Costs of hauling products in the United States from* **MOST REMOTE** *farms to shipping points, as reported.*

| Product hauled. | State or Territory reporting most remote farms. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|---|
| Apples | Arkansas | 50.0 | 4.5 | 2,000 | $12.38 | $0.62 |
| Barley | New Mexico | 57.5 | 4.0 | 2,000 | 22.00 | 1.10 |
| Corn | Georgia | 60.0 | 8.0 | 1,000 | 16.00 | 1.60 |
| Cotton | Texas | 110.0 | 8.0 | 3,000 | 24.00 | .80 |
| Cottonseed | Alabama | 50.0 | 3.0 | 1,000 | 7.50 | .75 |
| Flaxseed | South Dakota | 50.0 | 2.5 | 2,500 | 15.00 | .60 |
| Fruit (other than apples) | Utah | 52.5 | 4.5 | 3,000 | 13.50 | .45 |
| Hay | New Mexico | 80.0 | 5.0 | 2,000 | 15.00 | .75 |
| Hogs (live) | Texas | 31.5 | 3.0 | (a) | 7.50 | (a) |
| Oats | Utah | 100.0 | 14.0 | 7,000 | 35.00 | .50 |
| Potatoes | Colorado | 70.0 | 7.0 | 2,500 | 35.00 | 1.40 |
| Rice | Louisiana | 22.5 | 2.0 | 2,000 | 8.00 | .40 |
| Rye | Georgia | 60.0 | 8.0 | 1,000 | 16.00 | 1.60 |
| Tobacco | North Carolina | 50.0 | 4.0 | 1,600 | 8.00 | .50 |
| Vegetables (other than potatoes) | Georgia | 60.0 | 8.0 | 1,000 | 16.00 | 1.60 |
| Wheat | Utah | 100.0 | 14.0 | 7,000 | 35.00 | .50 |
| Wool | Oregon | 165.0 | 24.5 | 7,000 | 61.25 | .88 |

(a) Not reported.

TABLE 24.—*Cost of hauling* **APPLES** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Maine | 16.0 | 5.0 | 1,600 | $17.50 | $1.09 |
| New Hampshire | 12.0 | 1.0 | 4,000 | 4.00 | .10 |
| Vermont | 10.0 | 1.0 | 3,000 | 3.75 | .12 |
| Massachusetts | 19.0 | 1.0 | 3,500 | 4.75 | .14 |
| Connecticut | 15.0 | 1.0 | 2,000 | 4.00 | .20 |
| New York | 25.0 | 1.5 | 3,000 | 6.75 | .22 |
| New Jersey | 15.0 | 1.5 | 3,500 | 5.62 | .16 |
| Pennsylvania | 20.0 | 1.0 | 2,000 | 2.50 | .12 |
| Virginia | 22.5 | 2.0 | 2,000 | 4.50 | .22 |
| West Virginia | 40.0 | 4.0 | 3,500 | 8.00 | .23 |
| Ohio | 12.5 | 1.0 | 2,000 | 2.50 | .12 |
| Indiana | 17.5 | 2.0 | 1,600 | 7.50 | .47 |
| Illinois | 12.5 | 1.0 | 3,000 | 2.25 | .08 |
| Michigan | 15.0 | 1.0 | 3,000 | 3.00 | .10 |
| Missouri | 25.0 | 2.0 | 2,000 | 5.00 | .25 |
| Kentucky | 25.0 | 2.0 | 2,500 | 6.00 | .24 |
| Tennessee | 30.0 | 2.5 | 800 | 5.00 | .62 |
| Arkansas | 50.0 | 4.5 | 2,000 | 12.38 | .62 |
| Oregon | 30.0 | 6.0 | 3,500 | 24.00 | .69 |
| California | 35.0 | 4.5 | 5,000 | 22.50 | .45 |

TABLE 25.—*Cost of hauling* **BARLEY** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Ohio | 10.0 | 0.5 | 2,500 | $1.50 | $0.06 |
| Illinois | 7.0 | 1.0 | 2,400 | 3.00 | .12 |
| Michigan | 15.0 | 1.0 | 2,500 | 3.50 | .14 |
| Wisconsin | 18.0 | 1.0 | 2,000 | 3.00 | .15 |
| Minnesota | 20.0 | 1.0 | 3,000 | 2.50 | .08 |
| Iowa | 16.0 | 2.0 | 3,500 | 7.00 | .20 |
| North Dakota | 25.0 | 2.0 | 3,600 | 8.00 | .22 |
| South Dakota | 30.0 | 1.5 | 3,000 | 5.62 | .19 |
| Nebraska | 25.0 | 2.5 | 3,250 | 5.00 | .15 |
| Kansas | 30.0 | 2.5 | 3,000 | 10.00 | .33 |
| Montana | 30.0 | 2.0 | 2,000 | 12.00 | .60 |
| Colorado | 40.0 | 2.0 | 3,000 | 5.00 | .17 |
| New Mexico | 57.5 | 4.0 | 2,000 | 22.00 | 1.10 |
| Arizona | 27.5 | 2.5 | 4,500 | 18.75 | .42 |
| Utah | 15.0 | 2.0 | 4,000 | 7.00 | .18 |
| Nevada | 45.0 | 6.0 | 16,000 | 24.00 | .15 |
| Idaho | 25.0 | 3.0 | 2,500 | 10.50 | .42 |
| Washington | 30.0 | 3.0 | 2,500 | 12.00 | .48 |
| Oregon | 30.0 | 2.0 | 4,000 | 6.00 | .15 |
| California | 33.0 | 3.0 | 10,000 | 28.50 | .28 |

TABLE 26.—*Cost of hauling* **CORN** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| New York | 25.0 | 3.0 | 3,000 | $12.00 | $0.40 |
| New Jersey | 5.0 | .5 | 1,400 | 2.00 | .14 |
| Pennsylvania | 20.0 | 1.0 | 2,000 | 2.50 | .12 |
| Maryland | 12.5 | 2.0 | 4,000 | 10.00 | .25 |
| Virginia | 22.5 | 2.0 | 1,500 | 5.00 | .33 |
| West Virginia | 25.0 | 2.0 | 800 | 6.00 | .75 |
| North Carolina | 50.0 | 4.0 | 1,600 | 11.00 | .69 |
| South Carolina | 30.0 | 2.0 | 1,500 | 4.00 | .27 |
| Georgia | 60.0 | 8.0 | 1,000 | 16.00 | 1.60 |
| Florida | 17.0 | 2.0 | 2,000 | 8.00 | .40 |
| Ohio | 30.0 | 2.0 | 2,000 | 8.00 | .40 |
| Indiana | 25.0 | 2.0 | 2,500 | 6.00 | .24 |
| Illinois | 24.0 | 1.5 | 3,500 | 6.00 | .17 |
| Michigan | 20.0 | 1.0 | 3,000 | 2.00 | .07 |
| Wisconsin | 16.0 | 1.0 | 1,500 | 3.00 | .20 |
| Minnesota | 20.0 | 1.0 | 3,250 | 3.50 | .11 |
| Iowa | 16.0 | 2.0 | 3,500 | 7.00 | .20 |
| Missouri | 25.0 | 2.0 | 1,500 | 5.00 | .33 |
| South Dakota | 50.0 | 2.5 | 2,500 | 15.00 | .60 |
| Nebraska | 26.5 | 2.5 | 4,000 | 10.00 | .25 |
| Kansas | 25.0 | 2.0 | 3,000 | 7.00 | .23 |
| Kentucky | 37.5 | 5.0 | 1,800 | 15.00 | .83 |
| Tennessee | 30.0 | 3.0 | 1,600 | 6.00 | .38 |
| Alabama | 37.5 | 4.0 | 1,200 | 10.00 | .83 |
| Mississippi | 25.0 | 3.0 | 1,200 | 4.50 | .38 |
| Louisiana | 32.5 | 4.0 | 2,000 | 12.00 | .60 |
| Texas | 47.2 | 4.5 | 1,100 | 10.12 | .92 |
| Indian Territory | 15.0 | 1.0 | 2,000 | 2.75 | .14 |
| Oklahoma | 45.0 | 3.0 | 2,000 | 7.50 | .38 |
| Arkansas | 45.0 | 4.0 | 1,600 | 8.00 | .50 |
| Colorado | 40.0 | 4.0 | 2,000 | 12.00 | .60 |
| New Mexico | 80.0 | 5.0 | 2,000 | 15.00 | .75 |
| Arizona | 27.5 | 2.5 | 4,500 | 18.75 | .42 |
| California | 15.0 | 2.5 | 1,900 | 13.75 | .72 |

TABLE 27.—*Cost of hauling* **COTTON** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Virginia | 20.0 | 1.0 | 1,750 | $3.25 | $0.19 |
| North Carolina | 50.0 | 4.0 | 1,600 | 11.00 | .69 |
| South Carolina | 30.0 | 2.0 | 1,500 | 4.00 | .27 |
| Georgia | 30.0 | 3.0 | 1,200 | 7.50 | .62 |
| Florida | 30.0 | 3.0 | 1,200 | 7.50 | .62 |
| Missouri | 30.0 | 3.5 | 1,500 | 7.00 | .47 |
| Tennessee | 25.0 | 2.0 | 3,500 | 7.00 | .20 |
| Alabama | 50.0 | 3.0 | 1,000 | 7.50 | .75 |
| Mississippi | 45.0 | 4.0 | 1,000 | 6.00 | .60 |
| Louisiana | 26.5 | 3.0 | 1,600 | 10.50 | .66 |
| Texas | 110.0 | 8.0 | 3,000 | 24.00 | .80 |
| Indian Territory | 15.0 | 1.0 | 2,000 | 2.75 | .14 |
| Oklahoma | 45.0 | 3.0 | 2,000 | 7.50 | .38 |
| Arkansas | 50.0 | 4.5 | 2,000 | 12.38 | .62 |
| Colorado | 40.0 | 4.0 | 2,000 | 12.00 | .60 |

TABLE 28.—*Cost of hauling* **COTTONSEED** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| North Carolina | 17.5 | 1.0 | 2,000 | $2.00 | $0.10 |
| South Carolina | 22.5 | 1.5 | 1,500 | 3.38 | .22 |
| Georgia | 30.0 | 3.0 | 1,200 | 7.50 | .62 |
| Alabama | 50.0 | 3.0 | 1,000 | 7.50 | .75 |
| Mississippi | 45.0 | 4.0 | 1,000 | 6.00 | .60 |
| Louisiana | 21.5 | 2.0 | 1,500 | 6.00 | .40 |
| Texas | 40.0 | 4.0 | 2,000 | 12.00 | .60 |
| Arkansas | 20.0 | 1.0 | 2,000 | 3.00 | .15 |

TABLE 29.—*Cost of hauling* **FLAXSEED** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Minnesota | 25.0 | 1.5 | 3,250 | $6.00 | $0.18 |
| Kansas | 20.0 | 1.0 | 3,000 | 3.00 | .10 |
| South Dakota | 50.0 | 2.5 | 2,500 | 15.00 | .60 |
| North Dakota | 35.0 | 2.0 | 2,700 | 6.00 | .22 |

TABLE 30.—*Cost of hauling* **FRUIT** *(other than apples) from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| New York | 23.0 | 2.0 | 2,500 | $9.00 | $0.36 |
| New Jersey | 5.0 | 1.5 | 2,500 | 6.00 | .24 |
| Delaware | 15.0 | 1.0 | 1,500 | 3.25 | .22 |
| Maryland | 12.0 | 1.0 | 1,750 | 2.75 | .16 |
| Virginia | 30.0 | 2.5 | 1,200 | 7.50 | .62 |
| Georgia | 25.0 | 2.0 | 1,300 | 6.00 | .46 |
| Florida | 22.5 | 3.0 | 1,500 | 12.00 | .80 |
| Kentucky | 27.5 | 2.0 | 1,600 | 4.00 | .25 |
| Tennessee | 30.0 | 3.0 | 1,600 | 6.00 | .38 |
| Mississippi | 30.0 | 2.5 | 1,500 | 6.88 | .46 |
| Arkansas | 40.0 | 2.5 | 2,250 | 7.50 | .33 |
| New Mexico | 50.0 | 3.0 | 2,000 | 6.00 | .30 |
| Utah | 52.5 | 4.5 | 3,000 | 13.50 | .45 |
| Washington | 30.0 | 3.0 | 800 | 12.00 | 1.50 |
| Oregon | 15.0 | 1.0 | 2,000 | 4.00 | .20 |
| California | 35.0 | 4.5 | 5,000 | 22.50 | .45 |

TABLE 31.—*Cost of hauling* **HAY** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Maine | 16.0 | 1.0 | 1,600 | $3.50 | $0.22 |
| New Hampshire | 13.0 | 1.0 | 2,000 | 4.00 | .20 |
| Vermont | 12.0 | 1.0 | 1,500 | 3.00 | .20 |
| Massachusetts | 10.0 | .5 | 1,650 | 2.00 | .12 |
| Rhode Island | 10.0 | .5 | 1,500 | 1.50 | .10 |
| Connecticut | 6.0 | .5 | 2,000 | 2.00 | .10 |
| New York | 25.0 | 1.5 | 3,000 | 6.75 | .22 |
| New Jersey | 11.0 | 1.0 | 2,500 | 4.00 | .16 |
| Pennsylvania | 20.0 | 1.0 | 2,000 | 2.50 | .12 |
| Maryland | 12.5 | 2.0 | 4,000 | 10.00 | .25 |
| Virginia | 20.0 | 1.0 | 6,500 | 4.00 | .06 |
| West Virginia | 20.0 | 2.0 | 1,750 | 6.00 | .34 |
| North Carolina | 25.0 | 2.0 | 1,500 | 4.00 | .27 |
| South Carolina | 15.0 | 1.5 | 1,600 | 3.75 | .23 |
| Georgia | 30.0 | 2.5 | 2,000 | 5.00 | .25 |
| Florida | 30.0 | 3.0 | 1,200 | 7.50 | .62 |
| Ohio | 30.0 | 2.0 | 2,000 | 8.00 | .40 |
| Indiana | 25.0 | 2.0 | 2,500 | 6.00 | .24 |
| Illinois | 24.0 | 1.5 | 3,500 | 6.00 | .17 |
| Michigan | 30.0 | 2.5 | 3,000 | 7.00 | .23 |
| Wisconsin | 30.0 | 2.0 | 2,500 | 6.00 | .24 |
| Minnesota | 30.0 | 2.0 | 3,000 | 7.00 | .23 |
| Iowa | 16.0 | 2.0 | 3,500 | 7.00 | .20 |
| Missouri | 25.0 | 2.0 | 1,500 | 5.00 | .33 |
| South Dakota | 15.0 | 1.0 | 2,000 | 3.00 | .15 |
| Nebraska | 25.0 | 1.0 | 3,500 | 4.75 | .14 |
| Kansas | 25.0 | 2.0 | 3,000 | 7.00 | .23 |
| Kentucky | 25.0 | 3.0 | 1,750 | 12.00 | .69 |
| Tennessee | 30.0 | 3.0 | 1,600 | 6.00 | .38 |
| Alabama | 37.5 | 4.0 | 1,200 | 10.00 | .83 |
| Mississippi | 45.0 | 4.0 | 1,000 | 6.00 | .60 |
| Texas | 47.2 | 4.5 | 1,100 | 10.12 | .92 |
| Indian Territory | 15.0 | .5 | 2,000 | 1.38 | .07 |
| Oklahoma | 20.0 | 2.0 | 2,000 | 4.00 | .20 |
| Arkansas | 20.0 | 1.5 | 1,600 | 4.50 | .28 |
| Montana | 30.0 | 2.5 | 3,500 | 11.25 | .32 |
| Wyoming | 40.0 | 3.5 | 1,500 | 10.50 | .70 |
| Colorado | 70.0 | 7.0 | 2,500 | 35.00 | 1.40 |
| New Mexico | 80.0 | 5.0 | 2,000 | 15.00 | .75 |
| Arizona | 27.5 | 2.5 | 4,500 | 18.75 | .42 |
| Utah | 33.0 | 2.0 | 3,150 | 7.50 | .24 |
| Nevada | 30.0 | 8.0 | 12,000 | 160.00 | 1.33 |
| Idaho | 27.5 | 1.5 | 2,500 | 6.75 | .27 |
| Washington | 30.0 | 3.0 | 800 | 12.00 | 1.50 |
| Oregon | 35.0 | 3.0 | 2,000 | 13.50 | .68 |
| California | 32.0 | 3.0 | 4,000 | 12.75 | .32 |

TABLE 32.—*Cost of hauling* **HOGS (LIVE)** *from* **MOST REMOTE** *farms to shipping points, as reported.* [a]

| State or Territory. | Miles to shipping point. | Days for round trip. | Cost per load. |
|---|---|---|---|
| Ohio | 20.0 | 1.0 | $3.50 |
| Indiana | 25.0 | 1.5 | 4.50 |
| Illinois | 20.0 | 2.0 | 5.00 |
| Michigan | 20.0 | 1.0 | 3.00 |
| Wisconsin | 20.0 | 1.5 | 3.00 |
| Minnesota | 20.0 | 1.0 | 5.00 |
| Iowa | 16.0 | 2.0 | 7.00 |
| Missouri | 25.0 | 2.0 | 5.00 |
| South Dakota | 25.0 | 2.0 | 7.00 |
| Nebraska | 27.5 | 2.0 | 7.20 |
| Kansas | 22.5 | 2.0 | 6.00 |
| Kentucky | 17.5 | 1.0 | 2.50 |
| Tennessee | 20.0 | 2.0 | 4.50 |
| Texas | 31.5 | 3.0 | 7.50 |
| Oklahoma | 17.5 | 1.5 | 5.25 |

[a] Reports concerning the weight of a load of hogs are not complete enough for use here, hence average cost per 100 pounds is also omitted from this table.

TABLE 33.—*Cost of hauling* **OATS** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| New York | 25.0 | 1.5 | 3,000 | $6.75 | $0.22 |
| Pennsylvania | 20.0 | 1.0 | 2,000 | 2.50 | .12 |
| Virginia | 18.0 | 2.0 | 2,200 | 5.00 | .23 |
| West Virginia | 20.0 | 2.0 | 1,750 | 6.00 | .34 |
| Georgia | 30.0 | 2.5 | 2,000 | 5.00 | .25 |
| Ohio | 30.0 | 2.0 | 2,000 | 8.00 | .40 |
| Indiana | 25.0 | 1.5 | 3,000 | 4.50 | .15 |
| Illinois | 24.0 | 1.5 | 3,500 | 6.00 | .17 |
| Michigan | 30.0 | 2.0 | 3,500 | 6.00 | .17 |
| Wisconsin | 30.0 | 2.0 | 2,500 | 6.00 | .24 |
| Minnesota | 30.0 | 2.0 | 3,000 | 7.00 | .23 |
| Iowa | 16.0 | 2.0 | 3,500 | 7.00 | .20 |
| Missouri | 25.0 | 2.0 | 2,000 | 5.00 | .25 |
| North Dakota | 35.0 | 2.0 | 2,700 | 6.00 | .22 |
| South Dakota | 50.0 | 2.5 | 2,500 | 15.00 | .60 |
| Nebraska | 30.0 | 1.5 | 2,500 | 5.25 | .21 |
| Kansas | 25.0 | 2.0 | 3,000 | 7.00 | .23 |
| Kentucky | 30.0 | 3.0 | 1,250 | 9.00 | .72 |
| Tennessee | 30.0 | 3.0 | 1,600 | 6.00 | .38 |
| Alabama | 25.0 | 2.0 | 1,500 | 4.00 | .27 |
| Texas | 42.5 | 3.0 | 2,500 | 4.50 | .18 |
| Indian Territory | 15.0 | .5 | 2,000 | 1.38 | .07 |
| Oklahoma | 45.0 | 3.0 | 2,000 | 7.50 | .38 |
| Montana | 35.0 | 3.5 | 2,500 | 10.50 | .42 |
| Wyoming | 55.0 | 6.5 | 4,500 | 22.75 | .51 |
| Colorado | 70.0 | 7.0 | 2,500 | 35.00 | 1.40 |
| New Mexico | 37.5 | 3.0 | 2,750 | 10.50 | .38 |
| Arizona | 27.5 | 2.5 | 4,500 | 18.75 | .42 |
| Utah | 100.0 | 14.0 | 7,000 | 35.00 | .50 |
| Nevada | 17.0 | 2.0 | 6,000 | 15.00 | .25 |
| Idaho | 27.5 | 1.5 | 2,500 | 6.75 | .27 |
| Washington | 60.0 | 7.0 | 2,000 | 28.00 | 1.40 |
| Oregon | 30.0 | 2.0 | 4,000 | 6.00 | .15 |
| California | 32.0 | 3.0 | 4,000 | 12.75 | .32 |

TABLE 34.—*Cost of hauling* **POTATOES** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Maine | 16.0 | 1.0 | 1,600 | $3.50 | $0.22 |
| New Hampshire | 13.0 | 1.0 | 2,000 | 4.00 | .20 |
| Vermont | 15.0 | 1.0 | 3,000 | 3.50 | .12 |
| Massachusetts | 19.0 | 1.0 | 3,500 | 4.75 | .14 |
| Rhode Island | 10.0 | .5 | 1,500 | 1.50 | .10 |
| Connecticut | 15.0 | 1.0 | 2,000 | 4.00 | .20 |
| New York | 25.0 | 3.0 | 3,000 | 12.00 | .40 |
| New Jersey | 15.0 | 1.5 | 3,500 | 5.62 | .16 |
| Pennsylvania | 16.0 | 1.0 | 3,500 | 4.00 | .11 |
| Delaware | 15.0 | 1.0 | 1,500 | 4.00 | .27 |
| Maryland | 12.0 | 1.0 | 4,000 | 5.00 | .12 |
| Virginia | 46.0 | 5.0 | 3,000 | 20.00 | .67 |
| West Virginia | 40.0 | 4.0 | 3,500 | 8.00 | .23 |
| North Carolina | 50.0 | 4.0 | 1,600 | 11.00 | .69 |
| South Carolina | 15.0 | 1.5 | 1,600 | 3.75 | .23 |
| Georgia | 30.0 | 2.5 | 2,000 | 5.00 | .25 |
| Florida | 24.0 | 2.0 | 1,500 | 5.00 | .33 |
| Ohio | 30.0 | 2.0 | 2,000 | 8.00 | .40 |
| Indiana | 15.0 | 2.0 | 3,250 | 6.00 | .18 |
| Illinois | 24.0 | 1.5 | 3,500 | 6.00 | .17 |
| Michigan | 30.0 | 2.0 | 3,500 | 6.00 | .17 |
| Wisconsin | 30.0 | 2.0 | 2,500 | 6.00 | .24 |
| Minnesota | 30.0 | 2.0 | 3,000 | 7.00 | .23 |
| Iowa | 13.0 | 1.0 | 2,000 | 3.00 | .15 |
| Missouri | 20.0 | 2.0 | 1,500 | 3.00 | .20 |
| South Dakota | 30.0 | 3.0 | 3,000 | 7.50 | .25 |
| Nebraska | 37.5 | 3.0 | 4,000 | 9.00 | .22 |
| Kansas | 9.5 | 1.0 | 3,000 | 2.50 | .08 |
| Kentucky | 37.5 | 5.0 | 1,800 | 15.00 | .83 |
| Tennessee | 35.0 | 3.0 | 1,500 | 8.25 | .55 |
| Alabama | 37.5 | 4.0 | 1,200 | 10.00 | .83 |
| Mississippi | 30.0 | 2.5 | 1,500 | 6.88 | .46 |
| Louisiana | 25.0 | 3.0 | 900 | 12.00 | 1.33 |
| Texas | 46.0 | 4.0 | 3,000 | 7.52 | .25 |
| Indian Territory | 15.0 | .5 | 2,000 | 13.75 | .69 |
| Arkansas | 40.0 | 2.5 | 2,250 | 7.50 | .33 |
| Montana | 30.0 | 3.0 | 3,500 | 13.50 | .39 |
| Wyoming | 55.0 | 6.5 | 4,500 | 22.75 | .51 |
| Colorado | 70.0 | 7.0 | 2,500 | 35.00 | 1.40 |
| New Mexico | 57.5 | 4.0 | 2,000 | 22.00 | 1.10 |
| Utah | 25.5 | 2.5 | 3,000 | 8.75 | .29 |
| Idaho | 25.0 | 3.0 | 2,500 | 10.50 | .42 |
| Washington | 30.0 | 3.0 | 800 | 12.00 | 1.50 |
| Oregon | 35.0 | 3.0 | 2,000 | 13.50 | .68 |
| California | 32.0 | 3.0 | 4,000 | 12.75 | .32 |

TABLE 35.—*Cost of hauling* **RICE** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| North Carolina | 15.0 | 1.0 | 800 | $2.50 | $0.31 |
| South Carolina | 17.5 | 2.0 | 1,750 | 4.00 | .23 |
| Georgia | 10.6 | 1.4 | 1,500 | 4.20 | .28 |
| Louisiana | 22.5 | 2.0 | 2,000 | 8.00 | .40 |
| Texas | 20.0 | 2.0 | 2,000 | 6.00 | .30 |

TABLE 36.—*Cost of hauling* **RYE** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| New York | 25.0 | 1.5 | 3,000 | $6.75 | $0.22 |
| Georgia | 60.0 | 8.0 | 1,000 | 16.00 | 1.60 |
| Ohio | 8.0 | .8 | 3,650 | 2.40 | .07 |
| Illinois | 10.5 | 1.0 | 2,000 | 2.38 | .12 |
| Michigan | 15.0 | 1.0 | 2,500 | 3.50 | .14 |
| Wisconsin | 20.0 | 1.5 | 2,000 | 3.00 | .15 |
| Minnesota | 25.0 | 1.0 | 3,000 | 3.00 | .10 |
| Missouri | 12.0 | 1.0 | 2,500 | 2.50 | .10 |
| North Dakota | 25.0 | 2.0 | 3,600 | 8.00 | .22 |
| Nebraska | 26.5 | 2.5 | 4,000 | 10.00 | .25 |

TABLE 37.—*Cost of hauling* **TOBACCO** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Pennsylvania | 16.0 | 1.0 | 3,500 | $4.00 | $0.11 |
| Maryland | 10.0 | .5 | 2,000 | 1.45 | .07 |
| Virginia | 22.5 | 1.0 | 1,500 | 2.50 | .17 |
| North Carolina | 50.0 | 4.0 | 1,600 | 8.00 | .50 |
| South Carolina | 20.0 | 1.5 | 1,200 | 3.00 | .25 |
| Ohio | 10.0 | .8 | 4,000 | 2.60 | .06 |
| Wisconsin | 20.0 | 1.0 | 2,250 | 3.00 | .13 |
| Kentucky | 30.0 | 2.0 | 1,200 | 5.00 | .42 |
| Tennessee | 27.5 | 2.0 | 1,600 | 5.50 | .34 |

TABLE 38.—*Cost of hauling* **VEGETABLES** (*other than potatoes*) *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Massachusetts | 19.0 | 1.0 | 3,500 | $4.75 | $0.14 |
| Rhode Island | 6.0 | .2 | 1,800 | .65 | .04 |
| Connecticut | 6.0 | .5 | 2,000 | 2.00 | .10 |
| New York | 22.5 | 2.0 | 8,000 | 9.00 | .11 |
| New Jersey | 15.0 | 1.5 | 3,500 | 5.62 | .16 |
| Virginia | 22.5 | 2.0 | 2,000 | 4.50 | .22 |
| West Virginia | 25.0 | 3.0 | 1,500 | 13.50 | .90 |
| North Carolina | 50.0 | 4.0 | 1,600 | 11.00 | .69 |
| Georgia | 60.0 | 8.0 | 1,000 | 16.00 | 1.60 |
| Florida | 30.0 | 3.0 | 1,200 | 7.50 | .62 |
| Kentucky | 37.5 | 5.0 | 1,800 | 15.00 | .83 |
| Alabama | 37.5 | 4.0 | 1,200 | 10.00 | .83 |
| Mississippi | 32.5 | 2.5 | 1,250 | 4.38 | .35 |
| Texas | 46.0 | 4.0 | 3,000 | 7.52 | .25 |
| Arkansas | 25.0 | 2.0 | 2,000 | 6.00 | .30 |

TABLE 39.—*Cost of hauling* **WHEAT** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| New York | 20.0 | 2.0 | 2,750 | $8.00 | $0.29 |
| New Jersey | 11.0 | 1.0 | 2,500 | 4.00 | .16 |
| Pennsylvania | 20.0 | 1.0 | 2,000 | 2.50 | .12 |
| Delaware | 15.0 | 1.0 | 1,500 | 3.25 | .22 |
| Maryland | 12.5 | 2.0 | 4,000 | 10.00 | .25 |
| Virginia | 25.0 | 4.0 | 2,500 | 10.00 | .40 |
| West Virginia | 25.0 | 2.0 | 800 | 6.00 | .75 |
| North Carolina | 50.0 | 4.0 | 1,600 | 11.00 | .69 |
| Georgia | 30.0 | 2.5 | 2,000 | 5.00 | .25 |
| Ohio | 20.0 | 1.0 | 2,500 | 3.50 | .14 |
| Indiana | 25.0 | 2.0 | 2,500 | 6.00 | .24 |
| Illinois | 20.0 | 2.0 | 3,000 | 5.00 | .17 |
| Michigan | 25.0 | 2.0 | 2,500 | 6.50 | .26 |
| Wisconsin | 20.0 | 1.5 | 2,000 | 3.00 | .15 |
| Minnesota | 25.0 | 1.5 | 3,250 | 6.00 | .18 |
| Iowa | 16.0 | 2.0 | 3,500 | 7.00 | .20 |
| Missouri | 30.0 | 3.0 | 1,200 | 6.00 | .50 |
| North Dakota | 35.0 | 2.0 | 2,700 | 6.00 | .22 |
| South Dakota | 50.0 | 2.5 | 2,500 | 15.00 | .60 |
| Nebraska | 30.0 | 1.5 | 2,500 | 5.25 | .21 |
| Kansas | 52.0 | 4.0 | 3,500 | 10.48 | .30 |
| Kentucky | 30.0 | 3.0 | 1,250 | 9.00 | .72 |
| Tennessee | 35.0 | 3.0 | 1,500 | 8.25 | .55 |
| Alabama | 25.0 | 2.0 | 1,500 | 4.00 | .27 |
| Texas | 60.0 | 5.5 | 2,200 | 16.50 | .75 |
| Indian Territory | 10.0 | 1.0 | 1,800 | 2.75 | .15 |
| Oklahoma | 45.0 | 3.0 | 2,000 | 7.50 | .38 |
| Arkansas | 45.0 | 4.0 | 1,600 | 8.00 | .50 |
| Montana | 35.0 | 3.5 | 2,500 | 10.50 | .42 |
| Wyoming | 55.0 | 6.5 | 4,500 | 22.75 | .51 |
| Colorado | 50.0 | 5.0 | 5,000 | 20.00 | .40 |
| New Mexico | 80.0 | 5.0 | 2,000 | 15.00 | .75 |
| Arizona | 15.0 | 1.0 | 5,000 | 5.00 | .10 |
| Utah | 100.0 | 14.0 | 7,000 | 35.00 | .50 |
| Nevada | 45.0 | 6.0 | 16,000 | 24.00 | .15 |
| Idaho | 27.5 | 1.5 | 2,500 | 6.75 | .27 |
| Washington | 60.0 | 7.0 | 2,000 | 28.00 | 1.40 |
| Oregon | 30.0 | 2.0 | 4,000 | 6.00 | .15 |
| California | 35.0 | 4.5 | 5,000 | 22.50 | .45 |

TABLE 40.—*Cost of hauling* **WOOL** *from* **MOST REMOTE** *farms to shipping points, as reported.*

| State or Territory. | Miles to shipping point. | Days for round trip. | Pounds in one load. | Cost per load. | Cost per 100 pounds. |
|---|---|---|---|---|---|
| Virginia | 46.0 | 5.0 | 3,000 | $20.00 | $0.67 |
| West Virginia | 4.0 | .5 | 2,500 | 2.50 | .10 |
| Ohio | 10.0 | 1.0 | 3,000 | 4.00 | .13 |
| Texas | 110.0 | 12.0 | 6,000 | 33.00 | .55 |
| Montana | 125.0 | 12.0 | 5,000 | 54.00 | 1.08 |
| Wyoming | 142.5 | 29.5 | 12,000 | 84.00 | .70 |
| Colorado | 35.0 | 3.0 | 5,000 | 9.75 | .20 |
| New Mexico | 80.0 | 5.0 | 2,000 | 15.00 | .75 |
| Arizona | 80.0 | 10.0 | 4,000 | 40.00 | 1.00 |
| Utah | 72.0 | 6.0 | 4,000 | 24.00 | .60 |
| Idaho | 27.5 | 1.5 | 2,500 | 6.75 | .27 |
| Washington | 60.0 | 7.0 | 2,000 | 28.00 | 1.40 |
| Oregon | 165.0 | 24.5 | 7,000 | 61.25 | .88 |
| California | 60.0 | 7.0 | 7,000 | 35.00 | .50 |

## METHODS OF HAULING.

### HANDLING GRAIN IN BULK.

In the North Central States much of the grain hauled from farms is taken in bulk, and the size of load is determined by the capacity of the wagon box. Additional sides and end pieces are put on

when it is desired to haul larger loads, especially when such a light grain as oats is taken. When a farmer intends to load a car with grain, and it is necessary to haul from ten to twenty wagonloads within a day or so, he often will be helped by a number of neighbors with their teams and wagons. He in turn will aid them when they haul.

It is a common practice to haul wheat and other small grain direct from thrasher to car. The grain is loaded as rapidly as thrashed and each wagon in turn is driven to the shipping point, where a wagon dump is often used for unloading the grain. This dump is a platform, on which a loaded wagon is driven, the end gate of the wagon box removed, and the parts of the platform upon which the hind wheels of the wagon rest are lowered so that the grain falls into a space below. It may be received into a bin under the platform for temporary storage, or may be conveyed immediately by mechanical means to cars or up to bins in an elevator.

Corn also, in some places, is handled in a similar way, the wagons receiving their loads from the machine on the farm as the corn is being shelled.

## FOUR-HORSE TEAMS.

The use of large wagons with broad tires and teams of 4, 5, and 6 horses enables farmers of certain parts of the United States, notably in the hill country of Maryland and the adjoining counties in Pennsylvania, to carry their products to shipping points and local markets in loads of two or more tons each. Since one of these large wagons holds at least twice as much as an average 2-horse wagon, one driver performs with the larger outfit twice as much service as he can with the smaller one. Where wages are high the economy in the use of the 4-horse wagon is considerable.

It may be of interest to persons not familiar with these teams to learn that the driver rides (when he rides at all) in a saddle on the "near" (left) wheel horse, and that he manages the horses with a single rein. The driver usually attends to the brake of the wagon, dismounting from his saddle for that purpose when it is necessary. The brake lever is usually at the back of the wagon below the floor of the bed, so that the brake may be easily operated by the driver as he walks.

## FREIGHT WAGONS.

The general use in the far West of regular freight wagons owned and driven by persons other than the owner of the products carried has already been mentioned.[a] Reports concerning this system of transportation were received from 31 counties, and the rates quoted for hauling farm and other products ranged from one-half cent to 1

[a] See pp. 12 and 33.

cent per 100 pounds per mile. Changes in the condition of roads, it is reported by some correspondents, cause fluctuations in the rates charged by these "freighters." Sometimes cotton is hauled for much lower rates than other goods, rates quoted for a haul of 25 miles in Somervell County, Tex., being 30 cents per 100 pounds for grain and 50 cents per bale, or about 10 cents per 100 pounds, for cotton. This ratio between cotton and other articles is also reported for other parts of Texas.

In order that one driver may take charge of a large amount of freight, two or more wagons are often coupled together and the entire train is drawn by a number of horses, mules, or ponies. The loads taken by a freight wagon, with its trailers, are said to weigh at times as much as 7 tons, and as many as 12 or 14 horses are sometimes used in one team. Since the freight wagon carries goods also on its return trip, its earnings do not depend solely upon hauling farm products.

Interesting comments upon this system of transportation, as well as other conditions of hauling from farms appear in "Notes from correspondents," on pages 47–63.

## TOTAL COSTS OF HAULING DONE IN 1905–6.

The quantity of all farm products hauled to shipping points in the United States in a given time is not to be obtained with much accuracy from present sources of information, but for a number of crops the quantity hauled from farms may be estimated approximately. The Bureau of Statistics of the Department of Agriculture reports annually the amount of wheat, corn, and oats in the United States shipped out of the counties where grown, and these figures have been taken in Table 41 to represent approximately the amounts of these crops hauled from farms to shipping points. It may be assumed that the whole of such crops as cotton, hemp, and tobacco is sold and hauled from farms, and that, except the amounts retained for seed, practically all of such crops as flaxseed and rice are taken to local shipping points or markets. The total weight of twelve products hauled from farms, as given in Table 41, is about 85,487,000,000 pounds, or 43,000,000 tons, and the total cost of hauling this amount was $73,000,000. The average cost per ton was $1.80.

The weight of wheat and corn hauled from farms in 1905–6 was 31,000,000 tons, while cotton and nine other surplus products weighed altogether only 12,000,000 tons. The heaviest crop, and the one costing most to haul to shipping points, was corn, and next in order was wheat. The barley crop, less an allowance for seed retained, was heavier than the cotton crop, but cost about one-half as much to haul to shipping points.

The relatively low price of corn made it cost 9.6 cents to market a dollar's worth of this grain, while a dollar's worth of wheat was

taken to shipping points for 7.2 cents, a dollar's worth of cotton for 1.4 cents, and a dollar's worth of tobacco was hauled for as little as 1.2 cents.

The high rate per 100 pounds (44 cents) for hauling wool amounted to only 2.7 per cent of the value of the article as given in the Twelfth Census. The average cost of hauling from farms to shipping points for the twelve articles mentioned in Table 41 was 5.2 per cent of their value.

TABLE 41.—*Costs of hauling specified products from farms to shipping points in the United States during the crop year 1905–6.*

| Product. | Pounds hauled. | Value of loads. | Cost of hauling. | | |
|---|---|---|---|---|---|
| | | | Per 100 pounds. | Total. | Per cent of value of loads. |
| Barley | [a] 5,948,000,000 | [a] $49,972,000 | $0.07 | $4,163,000 | 8.3 |
| Corn | [b] 38,166,000,000 | [b] 280,794,000 | .07 | 28,716,000 | 9.6 |
| Cotton | [c] 5,061,000,000 | [c] 556,834,000 | .16 | 8,098,000 | 1.4 |
| Flaxseed | [a] 1,382,000,000 | [a] 20,826,000 | .08 | 1,106,000 | 5.3 |
| Hemp | [d] 12,000,000 | [d] 546,000 | .06 | 7,000 | 1.3 |
| Hops | [d] 49,000,000 | [d] 4,082,000 | .11 | 54,000 | 1.3 |
| Oats | [b] 8,868,000,000 | [b] 80,646,000 | .07 | 6,208,000 | 7.7 |
| Peanuts | [d] 263,000,000 | [d] 7,271,000 | .12 | 316,000 | 4.3 |
| Rice | [a] 581,000,000 | [a] 12,301,000 | .11 | 639,000 | 5.2 |
| Tobacco | [c] 633,000,000 | [c] 53,519,000 | .10 | 633,000 | 1.2 |
| Wheat | [b] 24,246,000,000 | [b] 302,261,000 | .09 | 21,821,000 | 7.2 |
| Wool | [d] 278,000,000 | [d] 45,938,000 | .44 | 1,223,000 | 2.7 |
| Total | 85,487,000,000 | 1,414,990,000 | .09 | 72,984,000 | 5.2 |

[a] Total crop of 1905 less amount kept for seed.
[b] Shipped out of county where grown. This is taken to represent the quantity taken to shipping points and not the entire tonnage hauled on county roads.
[c] Total crop of 1905.
[d] Crop of 1899; census figures.

As this bulletin treats only of hauling from farms to shipping points, the quantity of wheat hauled to local mills for grinding is not included in the total of 24,246,000,000 pounds as given in Table 41. The entire wheat crop of 1905 amounted to 692,979,489 bushels. Allowing 1½ bushels per acre for seed, the quantity used on the 47,305,829 acres sown in the fall of 1905 and spring of 1906 would equal 71,000,000 bushels. This amount together with the quantity shipped out of county where grown being subtracted from the total crop, there remains about 6,500,000 tons of wheat, which may be taken as approximately the quantity hauled from farms for the use of local mills. With this home-ground wheat added to the total weight of traffic as given in Table 41, the sum would be over 49,000,000 tons. And the cost of hauling this wheat to local mills, if computed at the same rate as the cost of hauling to shipping points, would amount to $11,700,000. This, added to the total cost of hauling to shipping points as given in Table 41, would equal $33,521,000 for wheat and $84,684,000 for all crops mentioned.

## TIME TAKEN FOR HAULING LEADING CROPS.

The number of working days taken to haul 12 leading crops from farms to shipping points during the crop year 1905–6 is computed in Table 42 upon the basis of figures given in Tables 1 and 41. The greatest time for any one crop, as given in the table, is 8,494,200 days for hauling corn; but if the time taken for hauling to local mills the wheat consumed in the counties where grown be included, the total number of working days taken for hauling wheat from farms during the crop year mentioned would be over 8,900,000.

Although there were fewer loads of cotton than of oats, it required 1,000,000 more working days for men and teams to haul the fiber than this grain, the average time of round trip for oats being 0.6 day, and for cotton 1 day. Including wheat hauled to local mills for grinding, the total number of wagonloads of the crops mentioned in Table 42 was 34,200,000, and the services of men and teams for 24,500,000 working days were used in moving these loads.

TABLE 42.—*Total number of working days taken for hauling specified products from farms to shipping points in the United States during the crop year 1905–6.*

| Product hauled. | Average weight of load. | Number of loads. | Average time of round trip. | Total time of hauling. |
|---|---|---|---|---|
| | *Pounds.* | *Number.* | *Days.* | *Days.* |
| Barley | 3,970 | 1,498,000 | 0.7 | 1,048,600 |
| Corn | 2,696 | 14,157,000 | .6 | 8,494,200 |
| Cotton | 1,702 | 2,974,000 | 1.0 | 2,974,000 |
| Flaxseed | 3,409 | 405,000 | .7 | 283,500 |
| Hemp | 3,393 | 4,000 | .7 | 2,800 |
| Hops | 3,665 | 13,000 | 1.0 | 13,000 |
| Oats | 2,772 | 3,199,000 | .6 | 1,919,400 |
| Peanuts | 1,363 | 193,000 | .6 | 115,800 |
| Rice | 2,407 | 241,000 | .8 | 192,800 |
| Tobacco | 2,248 | 282,000 | .8 | 225,600 |
| Wheat | 3,323 | 7,296,000 | .8 | 5,836,800 |
| Wool | 4,869 | 57,000 | 5.6 | 319,200 |
| Total | 2,820 | 30,319,000 | .7 | 21,425,700 |

## VALUE OF BETTER FACILITIES.

The cost of wagon transportation would be lowered if the size of load were increased, or the time of round trip shortened, or if both these changes were affected; and either of them could be brought about in many communities by improving certain roads. The cost of hauling should be considered in connection with expenditures for building and improving roads. The size of loads might be increased, without a proportional increase in cost of hauling per 100 pounds, by using larger wagons with more horses or by driving heavier and stronger horses or mules; and the cost of hauling might be further reduced by quicker methods of loading and unloading.

Improvements which would reduce the cost of hauling by one-tenth would effect a saving of $7,000,000 in hauling from farms to

shipping points in the United States the products and quantities mentioned in Table 41, and $1,000,000 more would be saved in the cost of hauling wheat for the use of local mills, to say nothing of the amounts saved in hauling the unknown surplus of the crops not mentioned in this table, such as hay, potatoes, rye, buckwheat, fruit, vegetables, sugar cane, and sugar beets. If it costs a farmer 5 cents per bushel to haul his wheat to the shipping point when he requires one day to make a round trip, he might save $25 on a crop of 1,000 bushels if he could make two trips per day; or, if he still made but one trip a day but could increase the load from 50 to 75 bushels without adding to the number of horses, he might reduce the cost of hauling by one-third, thus saving about $17.

The average load of cotton, if increased to twice its present size and thus made about the same as the average load of wheat, might be hauled at little more than one-half its present cost per 100 pounds. Lowering the average cost of hauling cotton from 16 cents per 100 pounds, as it now seems to be, to 8 cents, would effect a saving of about 40 cents per bale, and the total amount saved on a crop equal to that of 1905 would probably exceed $4,000,000.

## NOTES FROM CORRESPONDENTS.

The numerous remarks written by correspondents on the schedules returned by them were of much value and interest in the preparation of this bulletin. The selections from these remarks which are given below contain much information in regard to conditions of wagon transportation in different parts of the United States.

### NORTH ATLANTIC DIVISION.

#### MAINE.

Piscataquis County.—A large part of farm products are hauled with 1 horse.

Sagadahoc County.—Hay and potatoes are about all the farm products shipped out of this county by rail or steamboat, except very light products such as eggs, butter, green peas, etc., where the average load would not be over 500 pounds and drawn by 1 horse. Railroads reach about all parts of this county at a distance of about 6 miles, except 2 points which are reached by Boston steamboat.

#### NEW HAMPSHIRE.

Merrimack County.—Our towns are putting in what we call State roads to quite an extent, made either of gravel or rock, which will help 50 per cent on the amount of loads.

#### VERMONT.

Franklin County.—This is a dairy region, and most of the cream is taken by creameries.

Chittenden County.—There are only 3 towns in the county without a railroad. Some portions of Hinesburg and Huntington are 15 miles from station. There is no grain raised for shipment, but hundreds of tons are bought and shipped into the county. Producing milk, butter, cheese, and condensed milk is the chief occupation of farmers of the county. All grain raised is fed to dairy cows.

## MASSACHUSETTS.

HAMPDEN COUNTY.—A large portion of our farmers sell at the stores in the villages, while a third or more sell direct to customers.

## RHODE ISLAND.

BRISTOL COUNTY.—Hauling is mostly short, as electric and steam railroads are near.

## NEW YORK.

BROOME COUNTY.—Farmers usually do the most of their hauling in this county in spring and fall; at the time the roads are at their worst condition.

ESSEX COUNTY.—The farm products of this county are largely consumed at home. The manufacture of paper and some lumbering are the more important features and cause home consumption.

LEWIS COUNTY.—Milk, when drawn to the station by others than the producer, is generally drawn from 3 to 5 miles at from 10 to 15 cents per 100 pounds.

ONEIDA COUNTY.—Railroads and canal are so conveniently located in this county that the average distance from a shipping point is not more than 3 or 4 miles in any direction.

QUEENS COUNTY.—Most of the products of Queens are sold in open market in Brooklyn, in downtown New York to shippers, or uptown at Twelfth Street Market or Harlem Market.

RICHMOND COUNTY.—The farmers who do the most carting are the vegetable farmers who raise sweet corn, tomatoes, cabbage, potatoes, beets, celery, etc., for the New York market, haul the products from different parts of Staten Island, and cross the ferry from St. George to New York. Some go as many as 10 miles, and one man in strawberry time hauls as many as 14 miles. Most farmers sell and cart their own produce, but some employ commission merchants to sell for them and pay 10 per cent commission.

SUFFOLK COUNTY.—All farm produce is shipped by railroad, except a few potatoes which go by water, mostly in sailing vessels.

TOMPKINS COUNTY.—Calves, pigs, and milk should not be included in answer 1 (as to weight of medium load), as such loads are sometimes a single animal or can of milk.

## NEW JERSEY.

CAPE MAY COUNTY.—This report does not include the farm products that are hauled to the local markets, such as the seaside resorts. There is very little farm produce shipped out of this county.

GLOUCESTER COUNTY.—A great deal of produce of Gloucester County is hauled in shelving wagons[a] to Philadelphia by way of Gloucester ferry. There are 3 ferryboats which run all night in "truck season" and then do not always keep the wagons clear. They accumulate along the river front in Philadelphia for hundreds of yards, though it takes only one hour for the boats to make a round trip. The 2-horse shelving wagon carries from 140 to 200 baskets of produce, each weighing about 30 pounds. The wagons do not always go loaded. The distance these teams go is from 1 to 12 miles, though some farmers haul occasionally from Salem County to Philadelphia via Gloucester ferry. A great deal of this hauling is done in the night and takes from 4 to 9 hours.

## PENNSYLVANIA.

ALLEGHENY COUNTY.—Formerly such weights (2,500 to 3,500 pounds) could not be moved by 2 horses or mules; however, since the era of better grades better roads have begun to be made, so that 3,000 pounds is not considered more than an ordinary load for 2 horses; in fact, my own team takes over 2 tons many times.

---

[a] Wagons with shelf frames for holding baskets, crates, and similar packages.

Armstrong County.—Our greatest difficulty in the hill country is lack of proper grading of the roads. We have to load for a certain steep hill; however much we could haul to it, we must load for it. Muddy or clay roads make the hauling more difficult during wet weather.

Butler County.—We have good clay roads 9 months out of the year. Hay is not 5 cents a ton higher when the roads are axle deep than when they are dry. Farmers have plenty of time to haul their products on dry roads.

Lancaster County.—Many of our farmers do quite a business in the line of trucking. Most of the produce is disposed of in Lancaster and other boroughs and towns in the county, and is hauled in 1 and 2 horse loads, varying in weight possibly from 300 to 1,500 pounds.

Northampton County.—Most of the grain is hauled to mills, where it is ground for home use.

Susquehanna County.—This county is situated on the summits of the Allegheny Range. It was first settled on the high hills or table-lands, where the original clearing was easier, and, the buildings being located there, many of the roads were made over the hills with very steep grades. They could be made much better now, but as the farm buildings are fixed the mistake is hard to rectify.

Sullivan County.—The amount that the average farmer hauls is small, but if the roads were improved in this section it would then be as easy to haul a load of 2 tons as it is now to haul 1 ton.

## SOUTH ATLANTIC DIVISION.

### MARYLAND.

Calvert County.—One-half of the farmers here use oxen to do their heavy hauling. We have no railroads.

Howard County.—A large percentage of hay and corn is hauled to Baltimore; the loads weigh from 5 to 6 tons and are drawn by 6 horses. The Fifth or Clarksville district is 20 miles from market and it takes 2 days for the round trip.

St. Marys County.—The ox team is used mostly in this section, though many of our farmers are adopting horses and wagons. Our roads are in such a condition that the slow plodding oxen are often more suitable.

Talbot County.—Large quantities of sugar corn and tomatoes are hauled an average distance of 1½ or 2 miles to our canneries during August, September, and to about October 10. The hauling is done with 2 horses or mules to each wagon, the load weighing about 1¼ tons, over earth roads.

### VIRGINIA.

Charles City County.—Those who haul cord wood to this wharf use 1-horse carts and 2-horse wagons, and generally make 3 loads a day.

Charlotte County.—Roads are good in summer, but bad in winter. The railroad, which is under construction, will traverse the length of the county, and will facilitate transportation.

Clarke County.—A few men use 2-horse teams on short hauls, when no snow is on the ground and the roads are good; some men haul 3 tons with 4 horses, but where the roads are muddy 1,000 pounds per horse is considered a heavy load.

Frederick County.—Our main roads are good macadamized pikes on most of which toll is charged. These, with 2 railroads in the county, give us pretty good outlets for crops.

Greenesville County.—The ox cart and 1-horse wagon haul more than half of all products, though the 4-horse team is sometimes seen.

HENRICO COUNTY.—Very little farm produce is hauled and shipped from this part of the county. Nearly all the truck is hauled by market carts, and retailed from the same. The surplus is sold to dealers who pack and ship. Farmers haul to Richmond for a distance of 20 miles.

HIGHLAND COUNTY.—The nearest railroad point from Monterey is Bartow, which is 27 miles, and from 2 to 3 days are required for a round trip.

MECKLENBURG COUNTY.—This county has four tobacco markets in different sections of the county, most of the tobacco sold on these markets being hauled from 6 to 20 miles. Tobacco is the main crop raised for market. We have earth roads and they are badly cut by lumber wagons.

WARREN COUNTY.—Hauling commodities to and from our railroad station would be greatly facilitated by better roads, as little regard has been paid to making easy grades. The roads were formerly constructed along the borders of large farms without regard to avoiding steep hills, when on either one or the other side these might have been easily avoided by a deviation of 50 to 100 yards.

NANSEMOND COUNTY.—Sometimes the farmers use 1-horse carts and carry just about half of the average wagon load, at about half the cost of a wagon with team of 2 mules or horses.

BUCKINGHAM COUNTY.—Tobacco is usually hauled to market from November 15 to March 1, wheat from August to October, corn from December to April. Tobacco costs more per hundredweight, as the roads are usually at their worst when it is hauled.

## WEST VIRGINIA.

BOONE COUNTY.—Nearly all the farm products are consumed by the employees of the railroad building in the county.

KANAWHA COUNTY.—The physical conditions in the county, hills and mountains, with the Great Kanawha, Elk, and Coal rivers flowing through it, with scores of creeks and branches, make diversified farming interests. Laterals from the railroads extend east and west, north and south, up to the largest creeks, and long hauls of farm produce are not needed as formerly. At remote points, country merchants handle the produce and make daily shipments to railroad stations.

PENDLETON COUNTY.—My place is 60 miles from Keyser, from which place they ship country produce. From Franklin (this county) to Harrisonburg, Va., the distance is 42 miles and the merchants of Franklin haul on wagons from that place. The distance from my place to Harman in Randolph county is 26 miles over a mountainous country.

POCAHONTAS COUNTY.—We have had the convenience of a railroad for 7 years; up to that time our country merchants had to haul a distance of 75 miles; now there are quite a number of farmers only 3 or 4 miles from the station; they take a load both ways and get home by noon.

## NORTH CAROLINA.

ASHE COUNTY.—We have mountains, hills, and ravines to cross, rough roads and rock in plenty to pull over. There is little to haul from farms except fruit and vegetables, as this is not a grain county. We make the most of our money by raising stock. A large amount of roots, herbs, and barks is hauled from this county.

CARTERET COUNTY.—As this county is water-bound and cut up with sounds, bays, creeks, and rivers, most of the farmers use their own boats to carry their stuff, such as cattle, hogs, sheep, and truck.

GREENE COUNTY.—Most of the farmers can reach either railroad or steamboat within 10 or 12 miles; some prefer to go 18 to 30 miles with tobacco, to find a better market.

RICHMOND COUNTY.—The grain sold is generally delivered at home, the local buyer hauling.

### SOUTH CAROLINA.

BARNWELL COUNTY.—Teams are usually made up of mules; not many horses used for hauling purposes.

GEORGETOWN COUNTY.—Rough rice is generally conveyed to the pounding mill by water in lighters, at 2 cents per bushel.

ORANGEBURG COUNTY.—From this point the roads have been built up by private subscription, aided by the county authorities.

### GEORGIA.

CHATTOOGA COUNTY.—In the winter the roads get so very bad that 2 bales of cotton make a good load, but in the fall when the roads are firm we can haul with 2 mules 4 bales of cotton.

DADE COUNTY.—There are 3 railroads available to most of the farmers in Dade County, but most of them haul their own produce into Chattanooga, Tenn.

NEWTON COUNTY.—There are so many kinds of loads that come to Covington that it would be almost impossible to give anything like an average. Melons from 2 or 3 in a buggy to 60 in a 2-horse wagon; peaches from a bushel to a load of 25 bushels; potatoes, cabbage, and other small truck in the same way. Cotton, which is the principal crop, comes in loads ranging from 1 bale on a 1-horse wagon to as many as 6 bales on a 2-horse wagon.

SPALDING COUNTY.—It costs practically 50 cents a bale to haul cotton to market.

### FLORIDA.

BREVARD COUNTY.—Products from the east side of Indian River are transported by private sailboats. The cost of such transportation if hired would be 5 cents per box for oranges and vegetables, or 10 cents per sack. Each producer has his own private boat.

DE SOTO COUNTY.—The heavy hauling in De Soto County is during the orange season from October to March. The fruit is hauled in field boxes to the packing houses along the railroad and the average price is 1 to 1½ cents per box for each mile from the grove to shipping point, so that hauling from a grove 10 miles from station may cost 15 cents per box.

LAKE COUNTY.—The roads are kept covered with pine needles, which relieves the strain over the deep sand.

LEE COUNTY.—Roads in this section are sandy. Three miles an hour is considered the average speed of a horse drawing a loaded wagon.

MARION COUNTY.—A great many farmers will make 4 to 6 round trips in a half day, as their fields are near shipping points; at the same time there are many farmers who will make only 1 round trip in a half day.

WALTON COUNTY.—Our roads in this section being of a sandy nature, the hauling is difficult.

## NORTH CENTRAL DIVISION.

### OHIO.

ADAMS COUNTY.—We move a considerable quantity of wheat 22 miles at a cost of about 1 cent per bushel.

CHAMPAIGN COUNTY.—This county has 5 railroads and all of the leading county roads are gravel pikes.

CLERMONT COUNTY.—There is a great deal of light teaming done here, such as hauling milk and small loads of fruit short distances to the electric traction lines.

DELAWARE COUNTY.—Hogs are not driven to railroad station for shipment, but are hauled in wagons.

Fairfield County.—We are 2 miles from market and we usually haul 5 loads per team per day.

Hardin County.—Hogs and sheep are hauled to the various shipping points.

Licking County.—Most of the products are hauled less than 3 miles. The roads in the county are pretty good in summer, farmers haul more than 1½ tons at a load, but they will not average that the year through.

Monroe County.—Our county is very hilly, with hills 500 to 700 feet high. We have a river front of about 30 miles. A narrow-gauge railroad enters the county about the middle of the northern boundary and passes through the western boundary. Many of our roads during a protracted wet spell of weather are nearly impassable. Some of these have been very improperly laid out and have very heavy grades. There are no macadamized roads. This county is a great oil field, and the great amount of heavy hauling of this business makes the roads much worse.

Wyandot County.—During the fall and winter, when the roads are frozen solid, hogs and baled hay are usually hauled and loads of 3 to 5 tons are very often reported.

Stark County.—This section has a number of steam and electric roads centered at or passing through Canton, the county seat, and these have stations or elevators. Electric roads do not carry grain freight.

Seneca County.—In 4 townships of our 15, on macadamized main roads, the capacity of a 2-horse team is about the same all the year. There are teams that move 75 to 100 bushels of wheat from farm to market.

## INDIANA.

Carroll County.—At the present rate of road improvement it will not be long before the roads will be in good condition throughout the year.

Crawford County.—Our county has been destitute of pike roads in the past, but within the present year we have begun to build 3 of these roads leading to principal shipping points.

Grant County.—The reason we do not have to haul our products any farther than 6 or 8 miles is because railroads intersect in the county from all directions, and all the small towns have elevators. All the main highways are piked.

Hamilton County.—Much of the produce of the farms in our county is hauled to Indianapolis, which is 12 miles from the nearest points. Hay is regularly hauled there, and also a good many hogs, sheep, etc. Wheat is usually sold at the local railroad stations. When teams go to the city it takes a day. In hot weather hogs are generally taken in the night and the teams come home next day at leisure. Poultry and such products are all bought by hucksters and hauled by them to the city.

Jefferson County.—We have over 100 miles of pikes in this county.

Kosciusko County.—But very little hiring is done by farmers in this county for hauling farm crops to markets. When the crop is marketed as it is being thrashed, the farmers exchange work and help one another haul, but when the crop is stored on the farm the farmer hauls it to market himself.

La Grange County.—A large number of roads are graveled. The wagons nearly all have 3-inch tires. The county is comparatively level, much of it is as level as a floor, and most of the teams weigh from 1,200 to 1,400 pounds per horse.

La Porte County.—This county has some 20 different lines of railroad running through it, making shipping facilities usually good.

Monroe County.—Hogs and lambs are usually hauled to market. Nearly all roads leading to towns are piked.

Noble County.—From the immediate vicinity in which I live (2 miles from Kimmell) onions constitute one of the principal crops hauled to market, and, the roads being level and good, nearly 3 tons make an average load.

Orange County.—We have about 180 miles of free gravel roads in this county, on which are usually hauled loads of 3,000 to 3,500 pounds with 2 horses. Our wheat

is mostly hauled direct from the thrashing machine to shipping points or market. When the roads are good the farmers haul from 40 to 80 bushels of wheat and average 60 bushels with 2 horses.

Pike County.—Gravel and stone roads now form the principal highways of this county. Loads of 4,000 pounds are frequently hauled. Before stone roads were built hauling in the winter months was almost an impossibility.

Wabash County.—The main roads of this county are pikes or well-graveled highways, thereby enabling farmers to haul their products at almost any time they care to.

Washington County.—We have good rock and gravel roads leading out from the county seat to almost any part of county, and farmers are hauling twice as large loads as they did on earth roads, while wagons are much heavier.

Wells County.—Grain is no longer hauled in sacks, but in large wagon beds, and dumped into the elevators. Hogs are not driven to market, but loaded on wagons in large racks. The roads are being graveled.

## ILLINOIS.

Boone County.—This county has good gravel roads and nearby shipping points. The grain and hay raised is mostly fed to cows and hogs.

Christian County.—Most of the heavy hauling done in winter is for hogs and baled hay. Farmers usually assist each other in hauling—they swap work—and very little hiring is done.

Effingham County.—Some farmers and feeders at a distance of 10 to 15 miles will start with cattle, sheep, and hogs and drive them in the cool part of the day, and at night, arriving at the shipping yards the next day. The stock is fed, yarded, watered, placed in cars, and in the night shipped through to Chicago and Indianapolis, arriving next morning. But hogs generally go in wagons in the night, arriving at shipping points in the morning.

Massac County.—Usually only one trip is made in a day if the distance is more than 3 miles. We have quite a mileage of good gravel roads, but the loads have to be regulated by what can be hauled over the poorer approaches.

McDonough County.—None need haul more than 6 miles in this county, but a more remote market is sometimes desired, where the town is larger and shipping better.

Kane County.—Wagon roads are mostly graveled. Heavy loads may be hauled at all times.

Jo Daviess County.—The northeast quarter of the county is practically level and from 3,000 to 4,000 pounds make a 2-horse load in rural districts. The balance of the county is very hilly and 1,500 to 2,000 pounds make a fair 2-horse load unless the highways are in the best condition. Farmers living over 5 miles from town never try to make more than one trip per day.

Jefferson County.—During the last part of the winter and early spring it is impossible to do any hauling on account of bad roads.

Henry County.—Corn is hauled from the sheller on the farm directly to the shipping points. Oats are hauled by owners from bins at times to suit their convenience. For corn hauling a system of exchange work among neighbors is invariably adopted; no money is paid even when exchange is not exactly even.

Gallatin County.—Hauling has to be done in the summer and autumn on account of the condition of roads during the winter.

Mercer County.—We haul our hogs because the shrinkage is much less than when they are driven.

Montgomery County.—Occasionally when the road is very dry and hard we haul 3,000 to 3,500 pounds with 2 horses, but 2,500 pounds make a good average load.

Shelby County.—One must bear in mind that there are 3 or 4 months in the year when no loads of any kind can be moved.

Tazewell County.—All the farmers exchange help when delivering farm products, so no hiring is done.

Winnebago County.—The principal roads to shipping points are hard, smooth, and dry at all times. Gravel is convenient and abundant in all townships of this county.

## MICHIGAN.

Alcona County.—In the fall the average load is from 35 to 50 bushels of potatoes. In the winter it will average 4,000 pounds of hay or other products. When frozen the road is good, but it is very bad in summer.

Alger County.—Much of the hauling is done on sleighs during the winter, when a usual medium load averages 1½ tons and the time taken for the longest round trips averages 3 hours.

Chippewa County.—Most of the hauling is done in winter with sleighs.

Mason County.—As we have many stone roads in Mason County, loads of 3,000, 4,000, and even 5,000 pounds are common for 2-horse teams in parts of the county where farmers can get on the stone roads without first traveling very far on earth roads.

Newaygo County.—Our clay roads are very fair from April until sleighing comes in the winter, but the sand roads are very bad during dry, hot, weather.

Oscoda County.—Our beef cattle and fat sheep are usually driven to Rose City, and shipped thence by rail to Detroit and Buffalo.

Van Buren County.—Roads in this county are mostly graveled, and a good, heavy, 2-horse team can easily haul 2 tons and more.

## WISCONSIN.

Adams County.—Our roads are sandy. Fifty bushels is a very large load and is hauled only by those possessing heavy teams.

Green County.—In this region nearly all of the farmers are engaged in dairying and the crops are about all fed to cows and hogs. The milk is hauled to cheese factory, creameries, and condensery.

Lacrosse County.—Farmers do not as a rule haul all they could at a load. In hauling hogs, for instance, a farmer will sometimes drive 10 miles with only one hog. The bulk of the produce raised is fed to stock, mostly to milch cows and hogs.

Langlade County.—Roads are generally poor in April and May.

Ozaukee County.—Nearly one-half of the farm products of this county, such as potatoes, apples, and oats, are hauled to Milwaukee, about 10 miles south of the south line of this county.

Richland County.—Dairying is one of the leading occupations, the milk being hauled every day to various factories.

Sauk County.—A large portion of the surplus produce of this region goes to market in the form of cream, butter, and cheese, and does not require heavy hauling.

Washington County.—Barley, the principal grain crop, is largely hauled in the winter when sleighing is good and the horses would otherwise be idle.

## MINNESOTA.

Anoka County.—Farmers haul manure from city to farm; some farmers use 3 horses and have a patent spreading attachment on the wagon. Potatoes constitute the principal surplus crop hauled in this region.

Goodhue County.—Most of the barley is hauled loose in grain tanks, one team drawing from 60 to 75 bushels.

Houston County.—Live hogs are among the principal farm products hauled.

Millelacs County.—This county consists of cut-over timber land. The farms are small and dairying is carried on to a great extent, so there is not a great deal of heavy hauling done.

Mower County.—Farmers usually haul about 100 bushels of oats at one load, when the roads are in good condition, with one team of 2 horses.

Rock County.—Our people are paying more attention to road building each year, and have some fine stretches of graveled roads. With a wide-tired wagon it is easy to haul from 100 to 125 bushels of oats, 75 to 85 bushels of barley, or 70 to 80 bushels of wheat per load.

## IOWA.

Audubon County.—I think there are more loads of hogs than any other one product in this county.

Clayton County.—Generally 4 old hogs, or 6 young ones, make a wagonload.

Clinton County.—Three and four inch wagon tires are used more than they have been heretofore. Farmers in this county do not have long hauls on roads because railroad stations are plentiful. We all try to feed as much of our crops as possible; we feed even our potatoes to stock.

Greene County.—Our roads are being graveled, and we have no difficulty in hauling any reasonable size of load.

Iowa County.—Very few products are hauled here except hogs, as most all grain is fed.

Johnson County.—Hogs are hauled at all times; grain, hay, and other products are hauled during late fall and early spring months.

Keokuk County.—The roads are all earth roads and become impassable sometimes. At such times it is a common thing to see 4 horses or mules hitched to a load of 1,000 pounds or less. On very good roads a load of 4,000 or 5,000 pounds, or even more, is occasionally hauled with 2 horses.

Louisa County.—Farmers mostly club together and help each other haul hogs, so that all of a single large shipment may be delivered in one day.

Lucas County.—Farmers generally do their own hauling, sometimes exchanging services with each other so as to avoid hiring.

Lyon County.—The quantity of grain hauled is usually limited by the size of the wagon boxes, which are generally filled. The same may be said of the weight of live hogs. A load of hogs weighs from 1,200 to 1,600 pounds.

Mills County.—The roads are of earth and are usually in good condition. Farmers do not hire much hauling, as the custom is to exchange services in doing this work.

Monroe County.—There is little difficulty in marketing the farm products, except in the early spring when the ground thaws; as soon as the roads settle they are good for the rest of the year.

Muscatine County.—Our roads are usually good for 10 months in the year. Our corn and oats are largely fed to the stock. Barley is practically all sold.

Sioux County.—Farmers usually exchange work in hauling grain.

Shelby County.—Very little hired hauling is done, as most farmers have their own teams and by cooperation with their neighbors are enabled to get their hauling done by exchange of work.

Story County.—In this county more is hauled from town to farm than in the opposite direction; tiling, lumber, and feed stuffs are the leading articles hauled to farms. The area tiled is increasing so that in a few years tiles will no longer be hauled in considerable quantities.

## MISSOURI.

Audrain County.—On an average our roads are good for 9 months in the year. Mud begins February 15 to 20 and ends about the last of April or May 15.

Dent County.—The greater number of farmers in Dent County haul from 5 to 15 miles. Those within 6 miles of the station or less generally make the haul in one-half day; a distance of from 6 to 15 miles requires 1 day, and more than 15 miles requires from 1½ to 2 days. A 2-horse team generally pulls a load of 1,500 pounds of

produce. The cost to the farmer is about 15 cents per 100 pounds for a distance of about 15 miles.

KNOX COUNTY.—Most of the farmers do their own hauling, and also exchange work with neighbors when they have very much to haul away.

LIVINGSTON COUNTY.—In the winter the roads are frozen and rough, so that at times it is almost impossible to haul half a load; hence many of our farmers haul when the roads are good, regardless of the market prices at that time.

PLATTE COUNTY.—Most farmers make 2 loads per day, some make 3 or 4. Many farmers with good teams haul 50 to 75 bushels of wheat per load. Wheat is the principal product hauled to shipping stations. The bulk of the corn crop is fed on the farms, as is most of the hay and oats.

ST. LOUIS COUNTY.—The city of St. Louis consumes the greater part of the products of St. Louis County; the shipments to outside places do not amount to much.

MCDONALD COUNTY.—Hogs, corn, and wheat are hauled mostly by the farmers; the poultry, dairy, and garden products are hauled by men from shipping points, who gather up these products.

MONITEAU COUNTY.—The hauling is usually done in September, October, and November, when roads are good.

## NORTH DAKOTA.

CASS COUNTY.—When hauling from thrashing machine direct to elevator, and when the distance is not greater than 4 miles, it is usual to take 4 loads of wheat of 125 bushels each in 12 hours. The wagon usually weighs about 1,800 pounds.

DICKEY COUNTY.—Often 75 to 80 bushels of wheat are hauled with 2 good horses.

FOSTER COUNTY.—The average distance hauled has been greatly reduced in late years, as all the railroads in this county have put in loading platforms at intervals between regular stations. These platforms are elevated to about the height of a box car. Many near-by farmers haul their crops from thrashing machines to these loading platforms, transfer the grain at once to the car, and consign to commission men at Duluth or Minneapolis.

WELLS COUNTY.—The usual number of bushels of grain hauled in one load is from 50 to 75. Sometimes farmers haul in larger tanks and take as many as 100 bushels of wheat and more of oats; but when over 75 bushels of wheat are hauled 4 horses are used. A great amount of the crop is hauled direct from the thrashing machine to market.

## SOUTH DAKOTA.

BONHOMME COUNTY.—A team hauling from 2 to 3 miles makes 4 trips a day; from 4 to 5 miles, 3 trips a day; from 6 to 8 miles, 2 trips a day; and hauling from 9 to 15 miles the team makes only 1 trip a day.

GREGORY COUNTY.—The railroad extends only a few miles into our county, but this season it is to be extended through. Our county was recently opened up, and as yet our roads are deplorable. A great deal of the corn is fed to cattle, and they are driven to market.

JERAULD COUNTY.—I think the average load of hogs would weigh about 1,500 pounds.

MCCOOK COUNTY.—I pay 1 cent per bushel for having my oats hauled and 2 cents per bushel for corn and wheat, the distance to shipping point being about 3½ miles. Many farmers in this county hire their grain hauled and pay from 5 to 6 cents per bushel for distances from 9 to 15 miles.

## NEBRASKA.

BUTLER COUNTY.—When thrashing is being done the wagons in turn stand under the machine and the grain runs into the wagon box. For oats, the wagon boxes are

made larger by putting on extra sideboards. One load of wheat consists of 55 to 60 bushels, corn the same, oats about 75 bushels. Grain is unloaded at the elevators by driving the wagon on the platform of the dump. The end gate is taken out of the wagon box, the back end of the dump is lowered, and the grain runs out. When the team is started the dump is brought back to its former position.

Clay County.—Very little hauling is paid for in money. Farmers generally exchange work when hauling.

Colfax County.—No hiring is done. We usually exchange with neighbors when we haul. I can make 6 trips a day, being only 2 miles from market.

Hitchcock County.—Sugar beets are not usually hauled more than 3 miles. We frequently haul 4,000 pounds with one span of horses.

Kearney County.—Corn in ear in husking season comes often in loads of 4,200 pounds from nearby farms. Farmers do most of their own hauling.

Keyapaha County.—Farmers within the county generally do their own hauling or exchange with their neighbors. There are more hogs hauled to shipping points than any other one product of the farms. The hauling of goods, lumber, etc., from the railroad to towns within the county is done by regular freighters at prices according to distance. The rate from Bassett, in Rock County, to Springview, in Keyapaha County, a distance of 25 miles, is 20 cents per 100 pounds; 4 and 6 horse loads are hauled, ranging in weight from 5,000 to 6,000 pounds.

Knox County.—We feel glad that this matter has been taken up, as this hauling is our hardest work.

Richardson County.—In shelling or thrashing grain, farmers generally exchange labor, thus helping each other. If a farmer prefers to hire and pay cash, he can usually get the men; but in this case he must take care to keep on good terms with his neighbors, as they generally prefer exchanging work to hiring out.

Stanton County.—Better roads would reduce the cost of hauling one-third.

Valley County.—Swine are generally hauled to the railroad.

## KANSAS.

Decatur County.—The weight and condition of work horses on the farm are improving, to keep pace with improved methods of farming.

Ellsworth County.—Farmers in this county generally pay from 3 to 4 cents per bushel of grain according to distance hauled, the greatest average distance being from 8 to 10 miles. When a man is paid by the bushel to haul grain, he generally makes 2 round trips per day when the distance is about 9 miles; but when a farmer is hauling for himself he often makes a leisurely trip of it and puts in a day.

Jewell County.—Fat hogs are all hauled in wagons.

Pottawatomie County.—The usual price asked and obtained for hauling a distance of 13 miles has been 10 cents per 100 pounds, but the amount of crops hauled to market is comparatively small. This is largely a grazing country, so that the crops are mostly condensed into beef and pork before being marketed.

Reno County.—It is no trouble for 3 of our farmers' heavy draft horses to haul from 3,600 to 4,000 pounds on our wide-tired low farm wagons on good roads, such as we have for 10 months in the year. Two or 3 farmers help each other and haul with 6 to 9 teams, thus moving a large amount of grain in a few days. By this method also we load a car of apples in one day.

Woodson County.—From 3 to 5 cents per bushel is charged for hauling grain when the distance is from 14 to 18 miles.

## SOUTH CENTRAL DIVISION.

### KENTUCKY.

Mason County.—Most all the hauling is done with 2-horse wagons. Twenty years ago most of the hauling was done with 4 horses and frequently with 6. Most of the roads have been macadamized in the last few years.

Metcalfe County.—There is very little grain exported from this county; nearly all is used at home. A considerable number of live stock is shipped, generally driven to railroad or steamboat on foot. The steamboat shipping is nearly all confined to the southeastern portion of county, which is nearer the Cumberland River than to the railroad. Navigation on the Cumberland is, however, suspended several months of the year by low water, which causes all parts of the county to resort to railroad part of the year.

Woodford County.—Nearly all of our roads are well macadamized turnpikes, and in the level portion of the county from 4,500 to 5,000 pounds are often hauled by 2-horse teams.

Wayne County.—Most of the surplus grain is consumed in the county and most of the other produce is collected by merchants and by them hauled to the shipping points.

### TENNESSEE.

Anderson County.—Comparatively little stuff is hauled to depot for shipment. Farmers in this county raise large quantities of produce and sell it at local mining towns.

Greene County.—Tobacco is delivered at warehouses during the winter and is the principal crop hauled at this season of the year.

Hamblen County.—Hogs and cattle are usually driven. Some are grazed on the uplands, but all are fattened on the river lands, except a few for home consumption.

Union County.—Our market is Knoxville, 30 miles distant.

### ALABAMA.

Dale County.—Some of our roads are sandy and the hauling is very heavy in dry weather. There are also a large number of clay hills which become cut up in wet weather, especially in the winter, when most of the heavy hauling is done.

Dekalb County.—The range of Lookout and Sand mountains runs through this county. All the railroads are in the valleys, which makes everything very inconvenient for the people on these mountains. The steep mountainous roads are in bad condition, 1,000 pounds making a good load for an ordinary team.

### MISSISSIPPI.

Claiborne County.—Four mules or horses haul from 2,500 to 3,000 pounds and for 4 oxen 3,500 to 5,000 pounds make a load. Farmers use from 2 to 4 horses or mules, also from 2 to 4 yoke of oxen for each load. For a 15-mile haul the cost is about 15 cents per 100 pounds. There are but few farmers who haul over 20 miles. Most of them haul 18 miles or less; a horse or mule team usually makes one of these long round trips in 1 day; an ox team in 2 days.

Lee County.—In the early fall, when the roads are good, 2 horses can easily pull 1,000 to 2,000 pounds. But we have bad roads in the winter before the crop is all marketed, and then it takes 4 horses to move 1,000 pounds.

Lamar County.—We use 2 mules or 4 oxen per load.

### LOUISIANA.

Assumption Parish.—Most planters do but little hauling, since they have railroad switches to their sugar factories.

Bossier Parish.—Owing to the improved conditions of our public roads in the last 5 years the expenses of hauling from our market have been lowered by 15 per cent.

IBERIA PARISH.—A great deal of the crops are shipped by the Bayou Teche directly from the sugar houses and landings by steamboats. That portion shipped by railroads is hauled from 1 to as many as 20 miles, the wagons generally taking back groceries, dry goods, lumber, and home supplies. Our roads are good, except in very wet weather.

IBERVILLE PARISH.—All rice shipped in this district is carried by boat; the longest haul is one-half mile.

PLAQUEMINES PARISH.—Sugar cane is hauled to railroads or to factory. Sugar is not hauled but is loaded on the cars at the factory. Rice is hauled to thrashers in the field in light loads of one-half to three-fourths of a ton. Thrashed rice is hauled from thrasher to steamboat in loads of three-fourths to 1 ton. Garden truck, oranges, etc., are hauled in small loads. No wagons are used, only carts. Some planters use 4-mule carts and haul heavier loads.

VERMILION PARISH.—Bad roads in the winter contribute largely to lengthen the time of the longest round trips. Then the want of facilities for delivering products at the receiving point is another cause of delay.

WASHINGTON PARISH.—There is a railroad building through the eastern and western parts of this parish which, when completed, will greatly shorten the distance to market.

WEST FELICIANA PARISH.—My place is about 6 miles to Bayou Sara. We make 2 trips a day with wagon when roads are dry and good and carry 3 bales cotton each load

## TEXAS.

AUSTIN COUNTY.—On black-land roads in dry weather the usual load is 2,000 pounds, but on sandy roads in dry weather it is 1,000.

BEXAR COUNTY.—We have a system of gravel and clay roads radiating from San Antonio, and farmers living on such roads can haul much above the average load; those living in the sandy portion of county haul less. Hay of all kinds is almost always baled, hardly any being hauled loose. Some wool is hauled to this market a distance of 80 miles.

COLORADO COUNTY.—Farmers as a general rule do their own hauling.

CORYELL COUNTY.—Hauling is mostly paid for by the 100 pounds, at about an average of 1 cent per mile per 100 pounds.

CROCKETT COUNTY.—It is cheaper for farmers to get freight teams to haul produce than to own enough teams to do their own hauling.

DENTON COUNTY.—The roads are generally fine on this black land in dry weather, but on the sandy land the roads are bad in dry weather, and the sand is generally hub deep. One thousand pounds to the team is a good load generally, 1,500 pounds is an extra load.

GRAY COUNTY.—Three years ago everything here went to market on foot, as this was one vast cattle country. A big change is being wrought; thousands of acres have been broken up and put into cultivation.

GUADALUPE COUNTY.—Nearly all of the farmers own their teams, consequently there is not much hiring of teams done.

HARRISON COUNTY.—Most of the hauling is done in the winter after the cotton has been picked, or after one or more bales have been picked. Hauling goes on until the year's crops have been planted and cultivation has been begun, when all the teams are thus employed. Our roads get to be very bad from rains, which are prevalent during winter and spring, and from constant heavy hauling.

GALVESTON COUNTY.—Our truck farms are near the railroad. We raise many kinds of vegetables and haul them to the station in all sorts of loads—1 and 2 horse wagons, small and heavy loads.

ORANGE COUNTY.—Rice is the only thing raised for shipment, and most of the farmers are close to the 2 railroads that run through the county.

MENARD COUNTY.—All merchandise is freighted on wagons to this point. We get our cotton hauled for $1 per bale, which is one-third less than full rate on freight.

Somervell County.—Hauling is usually hired. The cost ranges all the way from 15 cents to 30 cents per 100 pounds, except for cotton, which is 50 cents per bale.

Tarrant County.—Fort Worth being near the center of the county and a great railroad center, having 15 lines radiating from it, the hauls in this county are much shorter than in surrounding counties, and will not average more than 4 miles.

Taylor County.—Freighters generally haul with 4 to 6 horses or mules and readily take 3 tons at a load.

Titus County.—Most farmers do their own hauling with their own teams.

### ARKANSAS.

Chicot County.—In long periods of wet weather in the fall and winter, when most of the hauling is done, not more than half a normal load can be hauled, and the greatest distance on the average would require 1 hour more time per trip, or say 6 hours instead of 5.

Columbia County.—Roads in winter, after freezing and rains, become impassable in places and very expensive to farmers, for they have most of their cotton to market then.

Lee County.—Usually from the 15th of January to the 15th of April very little if any hauling can be done.

## WESTERN DIVISION.

### MONTANA.

Broadwater County.—This county ships oats, wheat, and barley to Helena, about 30 to 40 miles, also hay bales; but when the farmers want to load a car they all turn out in cooperation and haul the grain or hay in one day.

Fergus County.—Sheep men have the longest hauls in delivering wool to railroad stations and generally use 6 horses to draw 2 loaded wagons coupled together.

Ravalli County.—Ravalli County is in the Bitter Root Valley, a narrow valley with mountains on each side and a railroad running through. There are no long hauls and the roads are naturally good.

### WYOMING.

Fremont County.—The distance to shipping points (150 miles) practically prohibits the shipping out of farm products.

### COLORADO.

Adams County.—On account of the railroads running through the main farming district there are no long hauls for the farmers of this county, and the roads are seldom bad, for the climate is dry.

Archuleta County.—The roads are for the most part good as to material, but they are crude and unimproved. The wagons have to be unusually heavy to stand the rough roads.

Conejos County.—Roads are generally good and 5,000 pounds make a regular load for 4 horses. Horses in general farm use weigh about 1,075 pounds.

Delta County.—The hauling problem depends more on conditions of the roads than anything else. In a new country—and Delta County had its first settlers in 1881—the road mileage is always out of all proportion to the taxable property and population. This is especially true in the mountainous sections depending on irrigation, because there the farming lands are usually narrow stretches along the streams and on adjacent table-lands. However, this county has now reached that stage when the increase in population and wealth is more rapid than the increase in road mileage.

Eagle County.—The average farmer hauls his produce about 5 miles to a railroad in this county. Ranchmen or farmers living at a greater distance depend mainly upon stock raising and drive the stock to railroad shipping points, the greatest distance stock are so driven being about 40 miles, the average being 25 miles.

Fremont County.—The principal industry of this county is stock raising. The market gardeners and horticulturists are all near the railroad and do most of their hauling with 1 horse. Small quantities of hay and potatoes are hauled from the stock ranches.

Morgan County.—Sugar beets are generally hauled for 50 to 75 cents per ton. Five miles is the longest distance over which it will pay to haul beets.

Routt County.—Very seldom a load goes from here to the railroad. All of our supplies are brought the 110 miles by wagon, and on a 4-horse train of 2 wagons the load varies from 6,000 to 8,000 pounds. Supplies are usually hauled at 1¼ to 2 cents per 100 pounds according to road conditions.

Weld County.—On hauls within 3 miles of Kersey it is quite common for a 2-horse team to haul 6,000 pounds at a single load.

## NEW MEXICO.

San Miguel County.—A great deal of freighting is done in this section in the way of hauling railroad ties, telegraph and telephone poles, and railroad piling in the summer, with no feed for the teams except grass. Freighters are Mexicans with pony teams.

Sierra County.—One-half of the teamsters of this county have to haul goods from 40 to 75 miles.

Union County.—The freight rate here for wagon hauling is about three-fourths of a cent per 100 pounds per mile. There is a considerable quantity of fruits and vegetables hauled for about 2 months in the year.

## ARIZONA.

Maricopa County.—Salt River Valley is less than 30 miles wide, with railroads through the middle, so we have no long hauls. Roads are pretty good here and a good average work horse will haul 1 ton to shipping point. Some men haul 2 tons to the horse where the haul is short (2 or 3 miles). Four and sometimes 6 horses are used with 2 and even 3 wagons fastened one behind the other, thus 1 paid driver does the work of 2 or 3.

## UTAH.

Carbon County.—Freighting to Uinta Reservation and Vernal takes about 14 days for the round trip; 4 horses with 2 wagons take 7,000 to 8,500 pounds of alfalfa or 5,000 to 6,500 pounds of other freight. Much of the wheat and oats in this county is used at home for feeding teams of freighters.

Rich County.—Freighting generally costs 15 cents per 100 pounds for a long haul and 10 to 12½ cents for a short haul. The distances from farms to shipping points range from 18 to 33 miles.

Washington County.—We are so far remote in this county from railway communication that but little is shipped except beef cattle, mutton, wool, hides, and small quantities of dried fruits and molasses. The flocks of sheep are generally driven to points near the railway shipping points for clipping.

## NEVADA.

Humboldt County.—Most of the hay, grain, and flour is hauled by 2 and 4 horse teams. Very few teams other than those of farmers are used.

Nye County.—The grain and vegetables produced in this county go to supply the local mining camps. Freight teams of 10 to 14 horses or mules haul from here to Tonopah, a distance of 50 miles, and to Austin, about 75 miles.

Washoe County.—With 6 horses 2 wagons are hauled, and if there are more than 6 horses, and up to 14, still more wagons are trailed.

## IDAHO.

LEMHI COUNTY.—There is no farm produce hauled out of this county, for the miners take it all. There is a considerable quantity of flour shipped in. It is 70 miles to a railroad. The freighting charge from the railroad to Salmon is from 75 cents to $1.25 per 100 pounds, according to season.

NEZ PERCES COUNTY.—The usual price for hauling grain to railroad stations is 1 cent per mile per sack of grain, a sack weighing from 135 to 140 pounds.

SHOSHONE COUNTY.—There are no surplus farm products in this county. What few vegetables are raised are sold immediately to the mining towns adjacent. Most of the vegetables for market are bought from the outside.

## WASHINGTON.

ASOTIN COUNTY.—A number of settlers living between Grande Ronde River in Asotin County and Wallowa Valley in Oregon produce hogs chiefly, which they haul or drive to Asotin, Lewiston, or Clarkston, sometimes taking a week or 10 days to make the trip. A good many cattle also are driven to the stock yards at Lewiston, Idaho, for shipment by railroad.

BENTON COUNTY.—In hauling, a trail wagon is generally used, the first wagon carrying about 5,000 pounds and the trailer about one-half as much.

CHELAN COUNTY.—The condition of the roads makes it expensive to deliver freight; wagons and teams are both short-lived.

ISLAND COUNTY.—This county is composed of 2 islands from 2 to 8 miles in width and 50 miles in length. Our shipping point is at the nearest steamboat landing.

WAHKIAKUM COUNTY.—During the rainy season our roads are merely rights of way without any bottom.

## OREGON.

BAKER COUNTY.—Distances are great in this county. Some farmers come a distance of 50 miles and haul loads both ways; they will take 4 to 5 days to make the round trip. They are in the minority and their neighbors as a rule feed their own crops at home and send their produce to market in the shape of fat animals for the butcher.

CLATSOP COUNTY.—A great deal of our farm produce is taken to market in boats.

GRANT COUNTY.—The bulk of the products of this valley are sold at the mines, which are all around us in the mountains, from 10 to 50 miles distant.

HARNEY COUNTY.—Our nearest railroad point is 150 miles east of here. In hauling wool we leave home for one of the numerous shearing camps in the mountains south of here, a distance of 30, 40, or 50 miles, as the case may be, and wait there until loaded. Then we proceed from there to the railroad, where we unload. From the railroad we take back flour, bacon, lard, dried fruit, canned vegetables, fruits, fish, groceries of all kinds, dry goods, hardware, drugs, and everything pertaining to a country general store. If this merchandise is brought in for ourselves it is called "supplies;" if for the stores it is "freight."

LAKE COUNTY.—Our nearest shipping point or railroad point is Madeline in California, 98 miles distant. I do not know of a single farm product shipped except wool, for wagon and railroad freight charges prohibit it.

POLK COUNTY.—Those farms that are on the uplands have downhill hauls, and our summer roads are smooth and free from stone, so that heavy loads are usual.

## CALIFORNIA.

BUTTE COUNTY.—The tendency is to increase weight of load, warranted by heavier stock and improved roads.

HUMBOLDT COUNTY.—Hauling is done mostly by farmers, and there are only a few professional freighters in the farming line in this county. These freighters have gen-

erally 4 horses or mules, and on a 40-mile haul they take about 3 days for a round trip. But little hauling is done after the 15th of November, for rains set in about that time and roads get very bad.

Lake County.—Hogs are taken in wagons only in summer. When it is cool they are driven.

Los Angeles County.—You may often during the winter see 4 to 6 horses to a load of turkeys, and many of the large grain ranches use 8 to 10 horses, with 2 and sometimes 3 wagons to the team, while the fruit farmers generally use 2 and 4 horse teams.

Mono County.—There are no railroad or steamboat shipping points in this county, and no railroad station near to which farmers haul produce. They ship beef cattle from Carson City or Waubuska, Nev., mostly to San Francisco.

Monterey County.—The main farming regions of our county lie in two valleys and their foothills. Railroads run through both valleys, so the haul is not far to some station. In these two valleys horses haul on an average 1½ tons each, but where the haul is from outlying valleys, sandy stretches and hills reduce the loads one-half.

Santa Clara County.—There are two classes of farmers: one class is composed of fruit growers, who use 2, 4, and sometimes 6 horses; the other class, hay and grain farmers, who come greater distances with 4 to 6 horses.

Tehama County.—It is usual for one man to drive 8 mules hitched to a train of 3 wagons.

Yolo County.—Roads in this section are chiefly good. Many of the main roads have been oiled in recent years. These are fine winter roads, and also excellent summer roads for light travel, but for heavy hauling in the summer they are soft.